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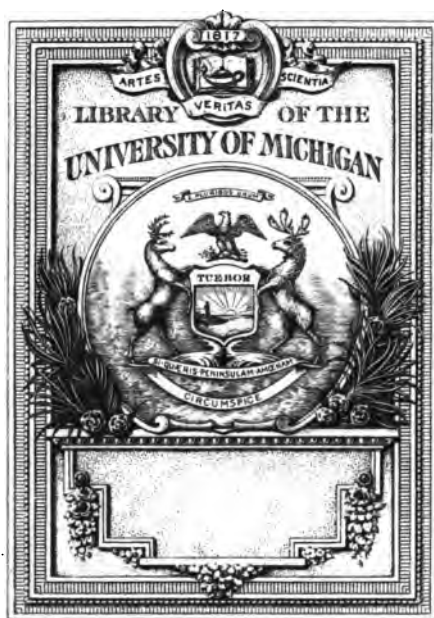
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THE GIFT OF
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THE
PRINCIPLES OF NATURE,

AS DISCOVERED IN THE DEVELOPMENT AND STRUCTURE OF

THE UNIVERSE.

THE SOLAR SYSTEM,

LAWS AND METHOD OF ITS DEVELOPMENT.

EARTH,

HISTORY OF ITS DEVELOPMENT.

BEING A CONCISE EXPOSITION OF THE LAWS OF UNIVERSAL DEVELOPMENT,
OF ORIGIN OF SYSTEMS, SUNS, PLANETS; THE LAWS GOVERNING THEIR
MOTIONS, FORCES, &c. ALSO A HISTORY OF THE DEVELOP-
MENT OF EARTH FROM THE PERIOD OF ITS FIRST FOR-
MATION UNTIL THE PRESENT. ALSO AN

EXPOSITION OF THE SPIRITUAL UNIVERSE.

GIVEN INSPIRATIONALLY,

By MRS. MARIA M. KING.

VOLUME I.

SARATOGA SPRINGS:

PUBLISHED BY ANDREW J. KING.

1866.

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SCRIBE'S PREFACE.

HAVING performed the part of Scribe in the production of this volume, I deem it appropriate to briefly state some of the circumstances under which it was written. My wife, Maria M. King, having been for more than fourteen months constantly under the power and control of an intelligence foreign to herself, which not only dictated what, and when, she should eat and drink, her general manner of life, but almost every act and word uttered, announced, some two weeks previous to the 8th of March, 1864, that on that day she would commence to dictate the work, long before promised, upon the Principles of Nature; and that I was desired to act as Scribe. Accordingly, at an early hour on the day indicated, we seated ourselves at a table provided with materials for recording what should be given. After remaining in perfect silence for about an hour, she said, (addressing me and speaking as for another :) "Before entering upon any important act, it is my practice, and should be that of all men, to first implore the blessing of God: therefore, I call upon you to pray." After prayer, we again seated

ourselves quietly, and in a few minutes she began to dictate slowly, and I to write ; which was continued till about half past eleven o'clock ; making a sitting of from three to four hours. She then went out and took the air, walking slowly in the garden, or seating herself in the sunlight and the breeze, until twelve ; when she went in and partook, sparingly, of bread, nuts, and fruit. After dinner she lay down for half an hour ; then read and revised what had been written ; and requested me to read it carefully and point out to her any defect I might discover in orthography, punctuation or grammatical construction. Thus was the first day's work accomplished ; and this is nearly a perfect example of every day employed in writing the book ; except that she dictated much more rapidly during the latter portion of the time we were engaged on the work. Always commencing soon after a light breakfast by a season of quiet and prayer, and always stopping, frequently in the midst of a sentence, by twelve o'clock ; and generally about half past eleven, usually filling from three to seven pages of foolscap with matter ; but sometimes sitting the whole forenoon without uttering a single word. This silence, at times, was continued for several days together ; which, to her, was a great trial. She called it unjust and abusive treatment, and tried to assuage her grief in floods of tears. These trials occurred at intervals through the whole period of dictating the volume, and were explained to her as being necessary to prepare her brain to give more perfect expression to the thought of the controlling mind ; as trials had always been, and always would be, necessary to prepare the brain of flesh to give high and important revelations—inspirations, to men. Yet, these, and others far more

severe, were none the less trials because she knew their design ; and it seemed, sometimes, that a merciless hand was pressing her to the earth without compassion ; and she would pray to be excused from further infliction ; but she was in the hands of a power as relentless as fate, which would relax its iron grasp, only when it had carried its victim to the very brink of despair. The deeper the work, the more profound the thought she was required to express, the harder was the trial preparatory to her dictating it.

After commencing the work, she dictated every day, except Sundays, for three weeks ; then rested one week ; then labored one week ; then rested for more than three months ; the greater part of which time was a season of trial and further preparation of her system for continuing the work. She then worked from two to three months, resting at intervals, but laboring about two thirds of the time, when it was announced that the volume was completed ; requiring, however, a revision.

After a rest of several weeks, she commenced a thorough revision of the work ; in some places adding many pages, and re-writing others. The actual time she was engaged in preparing the book for the printer was less than six months ; while from the time of commencing it to its final completion was a little less than thirteen.

During five months, which included most of the time of the revision, she ate no animal food whatever, not even milk, butter, or eggs, and, during all the remainder of the time of her dictating, and for fourteen months previous to her commencing, she ate no meat, save fish and fowl, and that sparingly once a day—for supper, that being her principal meal. To compensate for the rejection of all animal substance, she

was required to eat nuts, olive oil, raisins, figs, and other preserved and concentrated fruits and high vegetable substance. She ate less than one half her usual amount of food, but maintained in appearance, nearly, or quite, her usual condition of flesh. When writing, she had but little physical strength; but when resting—during the intervals of writing, if she had physical labor to perform, she was always equal to the emergency, even to accomplishing two days work in one, and capable of enduring more than ever before.

She read but little, and kept aloof from society. While dictating, she would frequently stop, and ask me to look for some word in the dictionary which would be presented to her mind, but which she was not permitted to use until she was satisfied of its appropriateness. While engaged in treating of the Solar system, she was required to procure "Herschel's Elements of Astronomy," with which to compare her theories and statements of fact; and when discrepancies occurred between her statements and theories and those contained in that work, they were explained as arising from defective knowledge of scientific men, of facts, or of the principles of nature involved; which facts and principles would be given her that she might see their consistency, and the harmony of her revelation with what was really known of scientific truth. Thus was she educated, and her mind carried along and made to comprehend her own revelations; her Teacher, as she called the controlling mind, asserting, that she should not be "a blind leader of the blind."

Whenever I discovered any thing in the composition that I thought could be improved, I always suggested it to her; sometimes she would adopt the suggestion, and as frequently

would not. I tried to comprehend the principles and theories as they were given, and compared them with those of philosophers and scientific men as far as I was able, in order to discover their agreement or disagreement, their consistency or inconsistency with ascertained facts and received theories; and frequently combatted the propositions announced, as being inconsistent, or in opposition to known scientific facts. I would sometimes flatter myself that I had succeeded in demonstrating the proposition, principle, or fact alleged, to be erroneous; but generally, was not allowed to remain long in that opinion, for the Teacher would explain the seeming discrepancy between his proposition and known principles and make all harmonize so perfectly with his theory, that I was always compelled to surrender all doubts of their correctness. Once, while dictating upon the subject of comets, facts were stated to exist which seemed totally inconsistent with each other, and with astronomic discovery; and on pointing out this seeming absurdity, the Teacher had nothing to say. This seemed to me a tacit acknowledgment that my position was unanswerable, and his theory was false. Maria could give no explanation; and I, feeling myself imposed upon, refused to write another word of his dictation until a consistent and satisfactory explanation was made. Not one word was given for several days; this was a time of trial for me as well as Maria, and more to me than her, (for she was confident it would be explained satisfactorily somehow, but I did not believe it possible;) then an explanation came, so clear, consistent, and convincing of the truth of all that had been said, that I was greatly ashamed of my pre-

sumption, and realized most vividly, how little I knew of the subject, and the laws of nature applicable to it.

Thus has this volume been produced; and it is given to mankind as it has been received, hoping for a rigid, but candid investigation of the facts, theories, and principles, it contains; asking no favors because of the extraordinary manner of its production, nor on that account, may whatever of value it contains be the less esteemed by a reasonable and enlightened public.

A. J. KING.

SARATOGA SPRINGS, *March 15th*, 1866.

AUTHOR'S PREFACE.

THE design of the work here offered to the public is to present a concise exposition of the principles of universal development; which signifies, development of physical and spiritual. To attempt a delineation of the hitherto unexplained or undiscovered phenomena of nature,—to state principles hitherto unstated, to delineate processes hitherto unknown in nature, it is necessary to cite examples, to state facts, as illustrations; otherwise, such exposition of principles could not be illustrated to mind; could not be understood by mind in its present state of development. Revelation is only profitable to man as it instructs him— aids in the development of his reason; therefore, facts revealed as illustrations, are to be studied with a view to their application to principles; else the object of their revelation is unattained.

The present volume discusses the subject of development of physical forms—the physical universe, more fully than it will be discussed in future volumes; however, the further

illustration of the principles, the processes of universal development will necessitate statements of new principles, new processes, as the work advances, causing each volume to be, like the first, an exposition of the principles of universal development.

The present volume closes with the completion of Earth's cometary stage. The second, it is expected, will commence with the initiation of its planetary stage. It is proposed in that volume to treat particularly of Earth's geological development, of the principles of development of vegetable and animal life; of the method of introduction of the various types, families, species, &c. of the animal kingdom, and the method of development of man. The various eras composing the planetary stage will be delineated; and particularly the eras subdividing the era of man; otherwise termed, the era of mind; as the historic era, fabulous era, the unrecorded era of man's history.

Leaving the subject of physical development with the present stage of earth, it is proposed in the succeeding volume to treat particularly of the development of spirit—the spiritual universe. A delineation of the processes of development of all grades of spiritual substance—forms, from a universe of spiritual spheres—the lowest form of spirit, to the highest form, that of individualized spirit—man, will be given; with the enunciation of the laws governing spiritual existence, animal life in the spiritual sphere, the transformations which man undergoes as he passes upward through the spheres, &c. The subject is broad, deep, and high; yet nothing is promised or attempted which may not be per-

formed, proper conditions of the medium through whom these revelations are given being retained; and nothing promised or attempted as to explanation and illustration of nature's principles, which may not be readily comprehended by minds instructed in the common science of the day.

It is proposed in this connection to speak of the circumstances attending the dictation of this work, and of the person through whom it is dictated.

This individual is of the age of forty-one, a wife and mother. Her early advantages for education were limited, poverty being the portion of her childhood and early womanhood: Her education is confined to a knowledge of the common and some of the higher English branches of education; with some knowledge of books gained by gleanings during periods of labor in teaching, which was her vocation before her marriage. With tastes and capacities of mind which would have enabled her to have acquired eminence as a scholar in any, or all branches of literature, circumstances have compelled her to be satisfied with the little she could glean in childhood and youth, while at the same time exerting herself for her own livelihood. A teacher at fifteen, and at twenty-four, and a student also.

Her cast of mind is that which is requisite for particularizing. She grasps, intuitively, propositions presented to her intellect, whatever their nature. Correctness of appreciation of principles, is the forte of her mind; therefore was she called to express principles. It may be said, that these qualities were germinal in her mind until development unfolded them; they never having been prominently displayed previous

to this period. As ignorant of the quality of her intellect as a child, her pleasure, her employment, has been the care of her family—the teaching of her son, the nursing of her babes, and the social enjoyments of home.

She became a member of the Baptist Church in her sixteenth year, of which she remained a member until four years since, when she voluntarily withdrew from church fellowship; being convinced of the truth of the spiritual philosophy, and aspiring after fellowship with its principles and its advocates. A careful investigation of the principles of this philosophy, had thoroughly convinced her of their genuineness. She clung to the doctrines of the church with the tenacity of one who feels the necessity for something to rely upon for the future; and who would not be persuaded to cast them aside without a sufficient substitute. She refused to be convinced of the truth of the new philosophy by the physical phenomena merely; but sought for light upon it by investigation of its principles. Once convinced, once satisfied that the foundations of the Spiritual Philosophy were sufficiently broad and deep to sustain the whole universe of mind, she fearlessly took her stand upon that foundation, satisfied that she was able to give a reason for her faith. Being thoroughly convinced of the reality of spirit manifestations, she conceived the idea of herself becoming the recipient of the gift of mediumship; having children and parents in the Spirit Land with whom she wished to hold intercourse. Using the appropriate means, this gift, which nature has prepared for all her children who seek it, was her's. At first, she wrote mechanically, by spirit agency. Then she believed the great

gift was hers which she sought. Here she was arrested; a stronger than father, mother, or children, was at the helm, guiding her bark over a deep, unsounded, to a port in the distance; whither she knew not. Devious was the course pursued by that bark, guided by the unseen, the unknown hand; yet firm was the hand that guided it, while confident was the heart of the voyager.

To this end was she born, to this end reared, that the gift of mediumship might be conferred on her. Angels watched her cradle in infancy, guided her steps in childhood, appointed her paths in youth, and in middle age, that this gift might be hers. Trials were appointed her from babyhood, through all her life's pathway, that she might be the better fitted to receive this gift. Gbd had called her, by bestowing upon her the quality of mind peculiarly favorable for the accomplishment of a work, when that mind should be unfolded by the power of spiritual agency. Spirit friends, guardians, understanding, from the period of her birth, the quality of her mind, guided her, to the end that circumstances might favor her development, at the proper period. What of trial she has endured during her life-time previous to the, so called, commencement of her development, is accounted as part of the process of her development; while those she has endured since seeking this gift, have been instituted as a means of completing a certain stage of that development. Thus, does God develop all His children by trial, suffering, for purposes which shall reveal themselves somewhere in the future of those children; be it in the flesh, or in the spirit.

Two and a half years of treatment, during which much mediumistic labor has been performed, have sufficed to complete her development to the plane upon which she is at present to labor. Her plane of development is termed the highest physical plane; from the fact that her physical system has become as susceptible to spirit influence as it is possible to become. The course of treatment which has been pursued with her has been an effectual one;—as effectual as thorough, and as thorough as a prescribed course of treatment could be, considering the constitution of mind and body of a subject whose mind and body was the best possibly constituted to endure it. A strictly scientific course of treatment has been pursued, and carried out in every particular, in the development of this subject; and from the inherent strength of her constitution, mental and physical, this course has been pursued to its termination in a comparatively short period. The course instituted and carried out in her case, will not here be described; it is sufficient to say, that dieting, seclusion, peculiar conditions of mind induced by psychological influence of spirit guardians, are the main processes of this course—the processes which have simultaneously acted upon body and mind; thus simultaneously developing both the physical and soul brain.

A development can never be said to be completed while an individual is in the form; as the organization of man is progressive, in a sense, and unfolds to higher planes of thought and action, by method—by development, in the true sense; yet it can be completed to a certain plane, and the physical to the highest plane, in the sense named; while the soul

brain—the direct receptacle of the mind, progresses beyond this plane, only so far as the law of sympathy, connecting the physical and spiritual, allows. A physical organization developed to the highest plane, is retained upon that plane by constant effort of spirit guardians, who withdraw from that organization all the lower quality of elements of food, atmosphere, &c. ; which it, must, necessarily, receive into it with food, &c. in the present age—the present stage of Earth ; it being rendered perfectly susceptible to their influence by development. The soul brain of a medium upon the highest possible Earth plane, must be constantly, or periodically, operated upon to withdraw from it the corresponding low quality of elements which enter into its constitution from the physical, unavoidably. This process necessitates psychological influence—trial ; as the mind is so intimately connected with the soul brain, and action of the one is action of the other.

The process, the science of development, has yet to be taught and understood by mankind,—by mediums themselves. When this science is understood, a flood of light will have overwhelmed mankind ;—of light upon some of the most mooted questions of the old theology and the spiritual philosophy.

Of her, it can be appropriately said : She has found her Gethsemane and her Cross. Henceforth a crown shall be hers ;—a crown such as decks the brow of every earnest laborer in the field of reform ; a crown which, though gemmed with diamonds of purest lustre, has many a seeming thorn ; seeming, in that they are the instituted means by which

reformers are qualified for their work ; appropriate crowns, for such have all reformers worn, from the days since Abel typified the purer heart worship by his more acceptable offering, until the evening of the nineteenth century, wherein it may be appropriately said, that reformers are martyrs ; and martyrs in the very land hallowed by the graves of those who suffered—contended with the pen and sword for the principle that asserts man's inherent right to liberty of thought.

NAPA CITY, CALIFORNIA, *January 3d, 1865.*

INTRODUCTION.

WHEN, in the progressive march of the human intellect, it becomes necessary to stimulate that intellect by revelation, in the order of nature, revelation is always vouchsafed ; when, in the progressive march of science, important truths are necessary to be comprehended that there be no hindrance to the progress of particular branches of science, there are always vouchsafed the necessary discoveries. According to this order, prophets are prepared to dispense the requisite revelations, and philosophers to make the necessary discoveries. A Chaldean seer is prepared to dispense a revelation of creation, a Grecian to dispense revelations of philosophical principles, and a Jewish to dispense revelations of moral philosophy. A Newton is prepared to discover the law of attractive force ; a Galileo, the true theory of the solar system ; a Savery, to discover the power of steam, and a Watt, a Fulton, to apply it to the use of man ; a Franklin, the nature of the electric fluid, and a Morse, to apply that fluid for the transmission of thought.

Nature, ever just to her children, employs the means in her power best suited to the present needs of the race. This principle of justice prompts her to prepare minds, which, like a Newton's, can bring forth truth from nature by its own

inherent power aided by revelation ; also to prepare others, which, by inherent power undeveloped but by spiritual agency, like a Jesus of Nazareth, a Plato, a Zoroaster, shall discover truth to the race by the power of mediumship—by direct revelation.

Not less important to man is the one method than the other ; for while a Newton, reasoning from a physical—a low stand point, is liable to draw unjust inferences from revealed truths by the power of intellect, which intellect, though educated, is obscured by the ignorance of the age, a Jesus may, by the power of a high mediumship, dispense pure truth ; his intellect being uncultivated, as compared to a Newton's. Therefore, the method of supplying important truths by the means of a high mediumship, remains to nature as the necessary method.

Epochs in the history of the race occur, wherein revelations necessary to the progress of the race, are given through prepared instruments. A seer of the ancient days transmitted the, so called, Mosaic account of creation ; the ancient nations each received, at epochs, revelations through prepared prophets, necessary for their instruction and their government. Such were the Chinese Confucius, the Persian Zoroaster, the Hindoo Buddha, the Grecian Plato, the World's Jesus.

Prepared prophets, signifies men or women of such peculiar casts of mind as are best fitted for the purposes of the minds of the second sphere, who would, through such instrumentality, benefit the race ; which individuals are prepared by development—a long course of treatment, instituted by the controlling minds in the second sphere ;—such treatment as the peculiar organization of mind and system of the individuals demands, and as the age, or condition of the elements, warrants. Fasting, seclusion, trial, "temptation," are some of the ordained means for the preparation of these prophets—the development of a high mediumship ;—such

a mediumship as ever did, or will, give to the race pure revelation from the spiritual sphere.

"God spake unto the people" in olden times as He speaks to them in this time,—through the instrumentality of spiritual beings; and while He spake thus to the people through the many prophets but partially prepared, in the olden time, whose sayings and whose treatment are not recorded, He spake through a Daniel, who fasted and prayed, was persecuted and tempted, remarkable sayings; through an Elijah, a David, a Jesus, who all fasted, prayed, "ate the bread of sorrow, and drank the water of affliction," being persecuted, hunted like the beasts of the desert, and "led up by the Spirit into the wilderness to be tempted"—sayings which will live while the race lives, being Divine truths;—truths transmitted to mankind by spiritual agency, through these prepared prophets. "God is no respecter of persons;" He prepares, by the ordained means, such individuals as circumstances have best fitted for such preparation;—such as are of the necessary quality of mind, who, by constitution of mind and body can undergo the necessary treatment for a high development; and whom circumstances have rendered proper subjects for such treatment.

As the race advances—as the reasoning quality of mind develops, the character of revelations changes. It was sufficient, when the ancient seer spoke, to say: "The earth was without form and void, and darkness was upon the face of the deep," without specifying the signification of "without form and void," or what caused the "darkness upon the face of the deep;" which "deep," was also unspecified. The people addressed were unthinking, unreasoning barbarians; enough was specified to them to awaken in their minds awe and reverence for the Divine Originator of nature, which was the object in view more especially than to instruct them with regard to scientific truth. Jesus taught without giving a reason for his philosophy—a philosophy which was to be

addressed to the unreasoning, the uninstructed, lowly minds of all nations; "Greeks and Barbarians," "Jews and Gentiles." Plato reasoned as a philosopher; he taught philosophers.

The philosophers of the present day, at fault concerning some of the most important questions of science, need a teacher. That teacher is vouchsafed them by nature—by the Father;—is vouchsafed in lowly form, in uninviting garb. Does that teacher come in the lowly form of woman—woman as uninstructed in philosophy, in science, as a babe; and yet, because woman,—not of them, will they reject her, as the Jews rejected Jesus, because he was not of the Pharisees, or of the Priests? Let them reject the woman; sacrifice her on the altar of selfishness and bigotry; but they will know that truth is powerful and will prevail; that natural science must take the place of obscure theories founded upon nothing; that what of truth man already possesses will be no less truth when brought to the comprehension of the, so called, unscientific;—no less truth when expressed in phrase unvarnished, unstudded with terms incomprehensible to the unlearned.

The age is calling for knowledge of principles; is calling for knowledge of scientific facts; of discovered facts, which, as facts, are so obscure that they may be gainsayed by the ignorant—set aside altogether. The blazing comet pursues its devious way in the heavens, an uncomprehended, an incomprehensible form to the La Places, the Newtons, the Herschels, of the day. The bodies of the solar system revolve around the central body of that system, keep their places within it, by virtue of a law unexplained by the science of the day. "The sun shines," the stars glitter, by virtue of a law as little understood by the philosophers of the day, as by the unlettered mechanic.

The world pauses for light; progress in the sciences can not continue without light—such light as only revelation can

bestow. Is it objected, that mind is to elicit its own light from nature; it is answered: That nature gives no light except by combining revelation with apparent truth. Newton might have studied the remainder of his lifetime upon the problem of attractive force, had not something called his attention to the fall of the apple. He had seen objects fall before, knew that it was the weight of the apple which caused its fall; why had he not thought before, that the solution of the great problem lay in the small circumstance of the ponderability of matter—of like seeking its like?—Such is inspiration. Newton's habits of life favored his partial development as a receiver of inspiration, as do the habits of all deep thinkers—students of nature. Man is not placed upon Earth an isolated being;—isolated from the sources of knowledge—the means for his elevation. As well expect the child to learn without placing in his hands a text-book, or providing him a teacher, as expect man to learn of all things in nature without the aid of inspiration. As the sunbeams illumine the otherwise dark atmosphere of Earth, so the beams of spiritual light perpetually illumine the atmosphere of man's mind; and illumine it according to its density—its susceptibility of impression.

The independence of thought and action which has been developed by the age, precludes the danger of the acceptance of any theory by the educated mass, that is not in accordance with nature and reason. The time has passed when a "thus saith an angel of the Lord," can bind a whole people to any theory, however wise, or absurd; men who feel their relationship to angels, to the Divine Mind, scorn the shackles which have hitherto bound mind; they will obey the maxim which says: "Prove all things," before they "hold fast" any thing. This is Divine.

This work is offered to the public entire, as the production of a mind disembodied—as a revelation. Through the instrumentality of mediumship, a mind once embodied in

flesh assumes again to address mankind in the flesh. This mind is one who sympathises with the wants of the people; and who, thus sympathising, has been led to use the means so abundantly within his reach to qualify himself to teach of the things herein taught. The years of his life in Spirit Land have sufficed to prepare him for the mission committed to him "by the angels;" and the short period wherein he has been preparing his instrument, has sufficed for the preparation of that instrument to that degree, that he is satisfied to commence his work;—to address the world through the brain—the organization of an embodied mind, on the most important topics that can be presented to mind.

The style of the work is peculiar, and such as will, doubtless, provoke severe criticism; however, it is deemed the most appropriate that could have been chosen, considering the nature of the subjects treated, the capacity of the medium for expressing, and the capacity of mind in the present age.

Principles—propositions, are illustrated as they are stated: this is the style—the peculiar method resorted to in this work in order that each principle may be properly comprehended. By practical illustration only, can mind properly comprehend nature's intricate principles and processes.

From the method pursued of treating the same subject in different connections—of reverting to the same principle again and again, in the course of the work, as examples illustrative of it arise, in order the more perfectly to illustrate it, it is inappropriate to subdivide the work into minor chapters or sections; which would be desirable would the style admit. In the preparation of the work, the author has experienced difficulty from the poverty of the language in which it is written. Human language is void of terms whereby to give expression to the true principles of nature; therefore, confusion of terms is unavoidable. The language has no names for qualities, or for methods of action, which are

not known to exist. Thus many terms are misapplied, in the sense in which men understand them, and the charity, as well as reason of the reader, is appealed to for an excuse for this innovation.

It is a habit with a class of mankind to eschew revelation—to discard the claims of those “who speak as they are moved upon by the Spirit;” and consequently, when perusing a revelation, they seize upon every imperfection of style, or of composition, which they may detect; or which, according to their judgments are such, without taking into consideration circumstances of the laws governing mediumship, the poverty of language, &c. They charge to imposture all the supposed faults or errors discoverable by their own individual minds—observable from their own stand points; or, eschewing revelation altogether, they ascribe such faults—errors, to the incapacity of the mind of the writer. When men shall have studied and comprehended the laws of mediumship; shall have expanded their minds to the comprehension of the true principles of nature, they will better comprehend the difficulties under which the author of this work has labored. Not only has the poverty of the language caused difficulty to the author; poverty of language—of terms, in the mind of the medium through which expression to the work has been given, has been a source of difficulty—of great embarrassment. The method pursued in the enunciation of the work through the medium, from the beginning, has been, that her mind should comprehend every principle, every word, uttered through the medium of her organization; therefore, no word has been used which was not in the mind of the medium, so to speak; in other words; no word has been applied in the exposition of any subject, in any connection, whose sense her mind could not appreciate in that connection. Of limited knowledge of terms, she is disqualified to express thought in a fluent, or graceful style. Men want no terms for the expression of principles which are incomprehensible to them,

therefore, terms which might otherwise have been used, have been entirely avoided.

The author commits the work to the public, believing that the truths therein contained will commend themselves to consideration, notwithstanding the method of their expression—the faults which acute readers, and skilled authors must find in the method of their expression.

Of the instrument it shall be said: "She hath done what she could;" let none misjudge her.

THE

PRINCIPLES OF NATURE.

CHAPTER I

GOD lived. The universe was His body, His dwelling place. His attributes were wisdom, power, justice, love, harmony. Infinite in these, without beginning of days or end of life, His prerogative was to act eternally by these attributes, through His organization, the universe. As infinite in extent as God, the indwelling mind in duration, the universe was from eternity the vehicle of Deific manifestation. God planned ; wisdom dictated the plan which was executed by His other attributes. Method was the eternal mind. Progress was the law as exhibited in the method of motion, of progressive law, through periods from eternity, wherein matter was evolving forces, developing life. Motion was eternal ; eternally acted in the universe from life centers—organs, as we term them, of the Body of Deity. These centers were innumerable, as that Body was infinite in extent. God was Life, Motion, Matter, Law ; yet, He was Mind and Body. His intelligence, exhibited in nature—in the action of law—proves the existence of organized Deific Mind. Will, acting upon matter, caused motion.

The Deific Mind required a medium through which to act upon matter ; this medium was Deific Electric Force. This force is the link which connects the Deific Soul Principle with the Deific Mind. Nature's forces, life principles, are the Soul Principle of Deity, as the soul principle of all organized forms is the life, motive power of those forms. Deific Electric Force is the superior force of nature ; affinitized to Deific Mind ; it is therefore the medium through which it acts. Deific Electric Force, therefore, caused motion, stimulated motion, elicited life from gross matter ;—acted as the will of Deity ordained—as His plan dictated.

The method of God was, that action and rest should succeed each other ;—that motion, activity, should be succeeded by inactivity, death ; that action should induce weariness, necessitate repose ; rest should invigorate matter, necessitate action. Development was the product of rest and action ;—of apparent quiet and stimulated motion from eternity. God's method was, that eternity should be an eternity of eternities—an infinite period of infinite periods. There are degrees in infinity ; as there is an infinity which is limitless as God's life, and infinities which are limited ; so there is an eternity limitless as God's life, and eternities which are limited. Terms are wanting whereby to express the true language of development ; therefore these terms are used as being most expressive of the truth.

God's eternal Life, or Period, was, from eternity, separated into periods constituting cycles, compound cycles ; periods by twelves and sevens. These divisions—eternities or seasons, were periods of rest and action. One eternity of shortest period, so called, was nature's day of repose, (a period eternal to the comprehension of finite mind, and which will be, until such mind has lived through many such periods) or a period wherein Electric Force awoke motion, action ; renewed motion, developed life, law ; matter assumed form, or sought to assume form ; a day of activity—an eternal day correspond-

ing to the preceding eternal night. Twelve such periods constituted one period, termed a cycle. Seven cycles constituted one compound cycle, two of which constituted a period termed a complete cycle.

Cycles were periods wherein nature accomplished a certain proportion of her work allotted for accomplishment in a compound cycle. Cycles were separated by periods corresponding in length to one period of a cycle. These periods were, properly, continuations of the night closing the cycle, therefore they are not counted as periods of a cycle, or eternities, as are the other six periods of the cycle. Corresponding periods intervened between eternities, cycles of eras, and eras, as well as between compound cycles of eternities ; which periods were, properly, continuations of the night preceding the interposition of the period.

The whole season of nature's labor, or action in a complete cycle, was a compound cycle. This was divided into seed-time and harvest, so to speak ;—nature's period of preparation, and her fruit bearing period. The compound cycle corresponding to this, and constituting the remainder of the complete cycle, was one of rest. This period corresponded to the other, being composed of eternal days and nights, so called, and cycles. What of action transpired during these days and cycles, was decomposition—the death of matter ; deeper, and still deeper repose ; the preparation for renewed action. Nature's action during one compound cycle will here be enunciated.

God—Infinite Life, lives through these periods, comprehends them, as man lives through his moments, comprehends them. God wills that man should know, should study His work, His plan ; should seek to comprehend all of God, of nature. Let him fear not to grasp after this knowledge ; coexistent with God, he shall live ; coeval with nature, he shall comprehend her.

The beginning of the present compound cycle was the

awakening to life of matter, after a compound cycle of repose. A complete period was one in which nature produced fruit—individualized spirit. From eternity, this was nature's—God's method.

A complete period comprises the period of repose and action ; winter follows the fruit bearing period as nature's season of rest ; precedes it, and, as necessary to the production of fruit is this period of inaction, as the action which immediately ultimates it. Typifying this is nature's eternal winter. This was the period which had passed when matter (signifying gross matter when thus referred to) awoke to life at the beginning of the present period—the one under consideration.

Seed-time ;—four cycles of this compound cycle was nature's seed-time. Night succeeded day until twelve periods—eternities, constituting one cycle had passed, during which matter had moved, motion had stimulated motion, central action had stimulated action throughout the universal mass ; indicating that formation should ensue—that nature was preparing her soil. Another cycle of twelve eternities passed. Each day—morning, motion awoke in primeval matter, so termed, after a night of death—a period wherein motion had ceased 'to exhibit itself' by developing force ; wherein decomposed elements had reinvigorated themselves by rest. Each morning was, in a sense, as the awakening of nature for the first time ; as the eliciting of action from dead matter. Each evening was, in a sense, as the final decay of matter ; the destruction of all life, the final end ; it was the decomposition of elements which nature had formed during the day by unwearied effort. Each morning, however, found matter farther advanced than the previous one.

The second cycle accomplished what the first had promised—formation. Central suns were formed—not completed. Condensation did not prepare them to be the parents of other suns—formations. The third cycle perfected central suns to

the point where formations could result within them from parental law, and be evolved by this law. Secondary formations evolved formations; suns of the second order evolved formations. Matter developed into the fourth grade. Suns—all suns of this cycle revolved around their centers through their eternities as comets—rare, vapory bodies. The fourth cycle developed matter into the seventh—the highest grade; the six orders were developed. During this cycle, no sun was condensed beyond the condition of dense vapor. Nature's ceaseless effort was to condense matter—develop planets. Behold her work! Eternity after eternity she had wrought; cycle after cycle had passed; and yet, when the fourth cycle was finished no matter existed more condensed than dense vapor—no world farther developed than to the condition of a dense, vapory comet. She paused not; the promise was hers; the end should be accomplished; the next cycle should perfect her work—should be the commencement of her reaping-time.

The fifth cycle developed positive spirit,—otherwise organized mind, from the grade of matter under development—that constituting the universe of evolved or stimulated matter. Universal action, during the first day of that cycle, developed matter to the condition of stratified earth; developed spirit—not individualized, not positive, so termed; yet the end was in view. The evening found the fruit unripe, not ready for the sickle. The second day completed what the first had so nearly accomplished;—man the ultimate of nature's elements—the perfect formation, resulted as the climax of nature's stupendous work. Each day of that cycle succeeding this, developed man.

The sixth, the present cycle, continued the work which the fifth had commenced. The beginning of each cycle was marked by the display of significant signs of more rapid progress in matter than was the order in the last cycle; the end of each was noted by significant signs that the existing pro-

cess or stage of development was completed. Electric Force, the originator of motion, was stimulated to greater and greater energy by each successive season of action and repose. The sixth cycle accomplished more in each day than the preceding one for this reason. The sixth day is now verging towards its night. Man developed during this day is brother to man developed in all days of all cycles ; with him shall serve and adore the Universal Father, and progress toward Him eternally. The present cycle closes with the night succeeding the close of the present eternity. The dawn of the succeeding day will be the institution of the seventh cycle ; succeeding this will be the institution of the compound cycle of rest.

CHAPTER II.

CENTERS innumerable existing from the beginning, universes, so termed,—the parts of the great universe subject to each center, were also innumerable. God acting as one through each, all centers, universal action was the same in all. (Universe is here used as eternity is—for want of a better term, one expressive of the truth.) As finite mind fails to comprehend an eternity, and will fail to comprehend it until it has lived through many; so it fails to comprehend one universe, will fail until it has, during the eternities to come, scanned many such universes. What is stated in the present chapter, refers to a single section of the infinite universe, of which God is the Mind—the Intellectual Principle;—a section subject to one center—governed from one center, whose circumference is bounded by sections like itself, denominated universes. Deific action simultaneously operative upon all universes—from all centers, all being simultaneously developed, an exposition of the development of one, is an exposition of the development of all; therefore what is revealed of development of law is of universal development, universal law in its broadest, most comprehensive sense. The universe we term ours—our dwelling place, being thus a type of all, its development will be the subject of the present chapter of this work.

Electric Force awoke motion—stimulated it at the universal center. Deific Impregnating Force was this force. Male and Female, God was, from the beginning; from the beginning He acted through the operation of these two principles, which were Himself, upon matter; stimulating all action therein. Procreative power, from the beginning, was

impregnating force ; was the co-operation of male and female principles within matter, producing formation. Stimulated motion at each successive morning or period, from eternity, was the result of the co-operation of these principles—the Impregnating Deific Force acting from centers upon all matter. These forces are also termed Positive and Negative ; Positive denoting the male, and Negative the female principle.

Simultaneously with the action of the impregnating force, the central atom of universal matter moved with stimulated motion ; universal matter felt the impulse, and moved also with stimulated motion.

This universe was, as finite mind comprehends space, immeasurable, limitless. All height, all depth, all length, all breadth, was one mass of liquid matter. All life, all power, all law, was latent within this mass.

Electric force, in its true signification, the one force of nature, is a graded force, as will appear in the future consideration of the subject. It has other appellations, as it acts as the assistant of the originating force, so termed, for the completion of forms originated by itself ; as the preparer of matter to assume form. It is termed attractive force, when it acts in its secondary capacity as the builder of forms ; chemical action, when it acts as nature's agent to prepare matter to assume form. Electric Force deposits the germ—impregnates procreative centers or institutes forms ; attractive force—the lower exhibition of the same force, draws atoms from nature which chemical action—the still lower exhibition of this force has prepared to clothe, to complete the formation.

Stimulated motion in the universal mass elicited these forces throughout that mass ; subjected all atoms to their power. Atoms moved among themselves ; this motion was chemical action. This motion elicited motion ; stimulated the motion of these atoms as elements ; atoms were elicited from elements, atoms by it,—by the friction of atoms. This

force reorganized decomposed matter ; demonstrated the power of motion upon matter. It was the lower manifestation of attractive force, being the power atoms exercised over each other by virtue of this force—this dual principle whose positive principle is termed attractive force, and whose negative, repulsive force. Chemical action, only exhibited in atomic matter, is simply the attractive force exerted by similar atoms upon each other ; the repulsive force exerted by dissimilar ones upon each other. This force subjected matter to the secondary force ; termed, as before remarked, attractive force.

Attractive and repulsive forces is the power exerted over atoms and bodies by central atoms and bodies, to form bodies, and to regulate their motions subsequent to formation. It is distinct from Electric Positive and Negative, so termed, in that it is exercised by atoms upon atoms, bodies upon bodies, as a propagated force, according to massiveness, or superiority of interior life force. Electric Force is distinct from this force, in that it is the Deific Force exercised at all centers simultaneously (all centers of the same grade, this force being a graded force and acting upon graded matter) to stimulate motion, that formation may ensue ;—to institute formation. The prevailing force in nature, author of life, of organization, ceaselessly operative in the multiplication of forms, in the institution of new forms ; yet, after the impregnation of a center, the institution of a form, it ceases its action as Electric Force, as will appear ; the instituted motion is henceforth termed attractive force.

The stimulation of motion, the institution of formation at the universal center, was the development of parental law. The central atom of universal matter moved obedient to Electric Force ; all atoms moved in obedience to the same force simultaneously with the central atom. This impulse was the impregnation of the parent center ; with this impulse, the necessity for the exercise of this force ceased.

Formation necessarily follows impregnation, and by the law of attractive force. This impulse developed attractive force—subsequent action in universal matter, as will appear in the exposition of the subject.

Law develops law, as force develops force, in matter. The movement of the central atom developed the law of affinity. The central atom, by the law of affinity, attracted similar atoms of the universe, which had been made subject to this force by the development of motion throughout the mass; by the development of chemical action among atoms by motion. Affinitized atoms sought affinitized atoms, unaffinitized atoms repulsed unaffinitized atoms throughout the universe, from the moment that life was awakened—motion stimulated therein. Chemical action fitted atoms to become subject to attractive force—the central power. The central atom—the germ of the new formation, was higher in quality, more condensed, than any other atom in the universe. Centers are where matter is most condensed. The central atom had, from eternity, been highest, most condensed; as, from eternity, the centers were established, and law determined their location. God is law; His plan resulted from His knowledge of all law. His method being motion, He wrought as God to institute motion at those centers; thereby instituting the process of development.

From eternity rotary motion was established. Atoms revolved; atoms attaching themselves to atoms, partook of the revolution of the most condensed atom, being obedient to its motion. The central atom revolving periodically, propagated its motion among all atoms attaching themselves to it; thus the rotary motion of the central body was established.

Primeval matter in universes is arranged in strata, by law. Decomposition resulting by law, quality of decomposed elements or matter, determines the position of the strata. The highest matter naturally forms the center—or that matter most susceptible to the Deific Force; centers signifying, as

here used, localities in the universe, where this force most exhibits itself—that next in quality arranges itself around this; thus, the most imperfect is the outer matter of the universe. Density and rarity are qualities of matter determining its position and degree of development. The most dense matter is the nearest perfected. Matter, assuming this position at the close of each active period, retains it until action is again resumed.

The law of development necessitates the formation of a central body of such construction that it may receive and retain within it all matter in the universe; it being the parent of all forms. Rare matter, only, is fitted to do this—can only receive other matter into itself; in other words; rare matter, only, can receive among its atoms other atoms.

The central atom revolving, propagated its motion throughout the entire mass;—the universe revolved. Outer matter moved necessarily with greatest rapidity. Rarest matter though it was, by this superiority of motion it soonest became subject to the central force; the consequence was, the central body was composed of rare, rarest atoms of universal matter.

Atomic matter may possess the quality of rarity or density, though the body which it forms be a rare or dense body, so termed. Granite rock is dense; atomic matter forming this rock is more rare than the atoms forming atmospheric air. This will illustrate the point. The central atom of the central sun was the most dense atom of the universe. Attractive force exercised by it upon matter, elicited therefrom like atoms, as has been remarked. Like atoms were all atoms of the universe, in a sense, all matter being similar. Evolved atoms only—atoms elicited by chemical action from unevolved primeval matter were subject to attractive force, and hence only could be attracted to the central body. Affinitized atoms, therefore, attracted to this body were diverse from the central atom in respect to quality of atoms, being rarest atoms.

Thus the composition, construction of the central sun was such as to answer the purpose intended. Law determines that the central atom of all bodies shall be the most dense ; that, like the central sun, the form shall be built of rarest atoms within its sphere ;—in other words ; subject to its attractive force. This is determined by the same law in all formations—the law of rotary motion, or revolution. The universe is the type of all subsequent formations. The evolution of the central body thereof was determined by the one law which determines all formations—the procreative law of nature.

Condensation ensues from motion, as remarked ; quality of motion is determined by the period and circumstances of development. The circumstances attending the development of the central body of the universe, were most unfavorable to its condensation. This will appear in the treatment of the grades of matter and orders of formations.

Affinitized atoms sought the central atom. Attractive force seized upon atoms which chemical action had prepared, drew them to the center, or to positions upon the central body determined by their quality,—affinities always arranging themselves together. Motion was apparent rest, even then. Periods of ages—incomprehensible periods to human intellect, elapsed while was forming a central sun ; untold ages while this sun was performing a single revolution. Yet motion accomplished its end—condensed that sun, after periods of ages again had elapsed, sufficiently to fit it to be the parent of new suns.

Mind fails to comprehend vastness when universes—when universes of universes are contemplated. It scans a universe, the laws of its development, and contemplates its forms by the light it possesses ; by its undeveloped faculties ; it contemplates them as it contemplates its immediate surroundings ; let it seek to soar, to fathom the universe of which it is a part ; to contemplate the center of that universe—the

first form, the mother of forms within it. It shall fail to realize the truth, to comprehend the vastness of this sun—a universe of itself, dispensing life and nutriment to its offspring—all other formations from highest man to the capricious comet which it has most recently evolved.

Condensation of this body resulted from attractive force. Ceaselessly operative was the force exercised by the central atom upon atoms composing the body. Motion stimulated motion within it; rotary motion stimulated atomic, or chemical action, which being stimulated, atoms became more and more subject to the central atom. As atoms progressed attractive force had more power over them; consequently they sought the center, obedient to it; the most progressed taking their places around and nearest the central atom; all atoms ranging themselves in the body according to this law.

Matter was in the first grade. The central sun—the first evolution of matter, was of the first grade. Motion evolving matter to form this sun acted upon matter so gross—undeveloped, that atoms elicited were nearly of the quality of the unevolved mass; therefore they are said to be of the first grade of matter, and the body formed by them to be of this grade. Quality of matter is determined by quality of force—motion therein. Judging by this law, this sun was of the first grade of matter; its motion as a body being that of the universe, the revolution of its central atom determining that of the universal mass.

It has been remarked that periods of ages elapsed while this sun was being condensed. In a sense, language is inexpressive, and terms meaningless when applied to the time which elapsed while it was forming and condensing, before it became fitted to be the parent of new formations—other suns.

The several grades of matter condensing according to the quality of motion therein, the higher grades progressed with infinitely greater rapidity than the first. Motion is stimulated at the evolution of each successive grade; inducing more rapid

progress in each successive grade than marked the preceding. The several stages through which matter passes during the perfecting of a world are indicative of its progress—properly its degree of development, and the subsequent period necessary for its development to the planetary condition—that of earthy matter, so called. Primeval matter is gaseous, elemental, invisible to the physical eye, inappreciable by any physical sense. This is true of all the grades of primeval matter—unevolved, so termed. The process of the evolution of the several grades will be described in a future connection. The formations of each grade undergo the same processes, pass through the same stages, only in different periods of time.

Condensation, after ages had elapsed, had developed the rare matter of the central sun to the degree that it began to assume form as a body. The hitherto apparently formless mass of pale light which surrounded the center of the universe, assumed the form of a sun. The consistency of the matter of this sun, at this period, was that of rarest vapor. It had consummated the first era of cometary development of a sun, so termed; it was entering the second. Its appearance at this period was that of an inconceivably vast sun, composed of flame colored vapor, barely visible from its extreme rarity of substance.

The period required to accomplish this condition of this sun, was longer than that required to develop a sun of the first order to the fifth era. Condensation of this sun continuing, the third era was reached after ages more; a period shorter than that required for the completion of the first, though one measured by periods; by untold ages. Its consistence at this stage was still that of rare vapor. The appearance presented by this body during this era was that of a sun; pale, rare, yet plainly distinguishable. Periods of untold ages again passed; the fourth era was reached. This era presented this sun of smaller dimensions. Condensation had contracted it. Volatile still, still rare vapor, yet it was

brighter, and evidently more condensed,—more a sun in appearance. Then it was a formation sufficiently advanced to possess procreative power—impregnating force, within itself. Condensation had qualified it thus by stimulating atomic motion within it, thus evolving this force. Condensation had qualified it to retain within its substance other substance—new formations. Of rarest atomic matter, it was fitted for this use, in that it was condensed to that degree that stimulated motion had developed attractive force of atoms to the degree that they could retain other atoms among them—similar atoms. Procreative force was developed within it during the latter portion of the previous—the third, era. In all formations, the third era develops this force; but does not unfold it to the degree that impregnation can result. Impregnation ensued within this form during the fourth era, when procreative force had become sufficiently qualified to induce the requisite conditions. The qualified condition—the parental stage, being reached, it was henceforth a procreative sun; a sun which should continually evolve suns—elicit formations from universal unevolved matter, as law dictated. The law of formation—the parental law, developed first within this central sun, is the law of all formation; is the law of development coextensive and coeval with nature—with God; is the law determining the evolution of motion, force, law, and all subsequent action in nature. All action is procreative; all force is form. This will appear in the progress of this work, in the delineation of law, force, formative action in all nature.

Stratified universal unevolved matter permeated the atomic matter forming the central sun; it being of a quality so rare that it could commingle with all other matter as unperceived, undisturbing matter; it being unevolved. From this, chemical action evolved atomic matter of a dense quality, fitted to be central atoms of new formations. It has been remarked that atomic action developed attractive force of atoms within

this body ; that condensing force operated with greatest power at and nearest the center ; this determined the position within the body of the central atoms of new formations. Procreative force developed by this sun acted upon the highest of these evolved atoms within it, regardless of their position, or distance from its center. Acting upon such atoms, and like atoms, it created centers, termed procreative ; centers of forms ; law determining them such. Within this sun, at this period, the highest newly evolved atoms were within that stratum of the sun sufficiently condensed to retain formations within it where motion was most rapid ; or that stratum most distant from the center, which could be operated upon by the atomic matter of the sun to evolve atoms, and formations be retained, as remarked. These newly evolved atoms retained their positions within the stratum from which they were evolved, as undisturbing atoms to the evolved matter of the sun in that locality, but subject to its retaining force. The central atom of the parent body, more dense though it was, affinitized though it was, was a repelling rather than an attracting force to those atoms.

Degree of development of atoms, is degree of development of motion thereof. It has been remarked that all matter is similar, differing only in degree of development. Motion alone fixes, determines, the degree of similarity or dissimilarity of matter. Diversity of motion of atoms and bodies, originates repulsive force. Negative force is repulsive, and Positive, attractive. Atoms or bodies, acted upon by these simultaneously and equally, are neither attracted nor repulsed ; they retain their positions ; but the action of the two forces has stimulated their atomic motion as the effect of their combined, simultaneous action. This impulse impregnates atoms—institutes forms ; is procreative force. These forces continuing to exercise equal power over the body, the impulse is established motion. Nature instinctive with God-life—

inherent forces—develops herself thus by the law of simple attractive force—the dual principle.

Atoms, like bodies, possess rotary motion as well as atomic, as heretofore stated. The newly instituted motion of the evolved atoms of this stratum—the stimulated motion was rotary; was stimulated rotary motion of these atoms. This newly established motion was more developed motion than was that of the central atom; which constituted these newly evolved central atoms more developed atoms than that, simply, in the sense that they possessed more developed rotary motion. They were less developed atoms than the central atom, in the sense that their atomic motion was less developed—they were rarer atoms. The reader should carefully study and distinguish the two motions, rotary and atomic; as this is essentially necessary to an understanding of the law of development. Atomic matter, unappreciable by the physical senses, uncomprehended by uninstructed mind, can only be comprehended by the comprehension of the principles that govern the development of form in all nature. Mind can comprehend these; and thus comprehending, it can appreciate what of truth could never otherwise be appreciated by the aid of physical sense, or clairvoyant vision.

The procreative impulse stimulated rotary motion of these atoms. Procreative force acting upon bodies as such, stimulates their atomic motion; acting upon atoms as such, it stimulates their atomic motion; still its effect is to stimulate rotary motion of atoms of each, as above explained. There is no limit to infinity applied to God's Being, the extent of His universe, or the divisibility of matter. Atoms are infinitely minute in degree, as universes are infinitely vast in degree. Central atoms are appreciable to physical sense, being evolved; therefore, mind can comprehend the consistency of the term, atomic motion of atoms. An atom is a universe, a universe an atom; both are developed by the same law. Within each, attractive force elicits form; pro-

gress elicits animate nature. This truth is incomprehensible to physical sense unaided ; microscopic vision reveals enough to confirm the truth of this proposition. There is a limit to formation in atoms, as such, not reached by universes, as such ; in other words ; life, developed within atoms by formative force, is the lower manifestation of inanimate and animate life. Like universes, they develop central bodies and formations corresponding to universal formations, which are unperfected, being developed by unperfected action of laws, principles, forces. Formations developed by formations of these infinitesimal universes, are consequently unperfected. Life—nature's visible and invisible elements, are these forms ; infinitesimal atoms of infinitesimal universes.

Stimulation of motion of the evolved atoms constituted these more diverse from the central atom than previous to their evolution. Being constituted atoms subject to attractive force, they were subject to the central atom. Force of that atom was exercised to repel, not attract them. The influence of surrounding atoms was sufficient to overbalance the repelling force of the central atom ; they retained their positions.

Simultaneously, and as described, six atoms were developed from the same stratum in different localities. Procreative force impregnated these simultaneously ; simultaneously developing diversity in them from the central atom. Six formations were thus instituted simultaneously. The positions of these six centers, determined by law, were at equal distances from the center and from each other. Thus they were counterbalancing forms, forces ; and equal laws should develop them together ;—determined the precise time of the completion of each formation ; and determined this period to be the same in each.

The position of these six centers, determined by law, were so determined by the law of Deific action, the law which originates centers in the universe of universes. This law is

exhibited in the universe—the first form; in the central sun its central organ, and in all succeeding forms. Centers are determined by quality of central atoms in all forms. The existence of innumerable centers in the infinite universe developing action simultaneously, proves that innumerable atoms advanced to the same degree, existed therein. The fact that six centers were evolved simultaneously by the developing force of the central atom of the universe, proves the existence of this number of equally developed atoms therein; also proves that these were lower in quality than the central atom, being subsequently and by its force developed. The subsequent simultaneous evolution of equal numbers at different periods from universal matter, proves that centers unequally developed, existed throughout the organization. These centers, as has been remarked of universal centers, are organs of the universe; and prove it to be an organization. In development of forms, the dual principle acts variously, though to one end. Centers are acted upon by Positive and Negative equally; side organs, so termed, unequally. This applies to these as organs of a form, the nature of their offices as such; not to centers as procreative; all centers of all organs being made such by the equal action of the two forces, and themselves acting as procreative centers to forms dependent upon them. Balancing organs develop simultaneously, and in number according to circumstances. Two always develop together, one termed a Positive, the other a Negative center. The development of forms necessitates this. What action in nature has revealed of the operation of this force in thus establishing side centers charged with opposing forces, delineates the truth thus: Nature is charged with fluid, electric; this fluid is the two principles, so termed, of nature; which constitute appropriately one principle, or force, in that neither can act alone or independent of the other. To illustrate this plainly, man is cited as an example. Were his form, perfect as it is, divided centrally lengthwise, it would be no form of

man ; action ceasing between the parts, the structure would be destroyed. This would separate the positive from the negative organs ; the right side of the body with its organs, which are positive, from the left with its organs, which are negative. Does man require a central organ to his physical nature—a heart, currents supplied by this center charged with electric fluid of the two natures to supply all organs of his physical form ; and is the heart, the source of the electrifying agent—the fluid charging both sets of organs, one ; then do both sets—positive and negative, depend upon the same center ; then are they inseparable. This is a perfect illustration of all forms in nature. The universe was developed as man—by the operation of the same principle, in the same manner. As there is a positive side to man, a negative side, so there is to the universe, and to all intervening forms. The circumstances determining the number of balancing organs, properly termed, of a form, are the uses of the various forms developed by progressive law. In universes their number is infinite ; higher forms develop the same uses as these, but condense power in fewer organs. Man—the perfect form, develops the least number of balancing organs of any form in nature. The law of progression determining the development of higher and still higher forms, exhibits the action of this perfect law, the same in all forms ; but exhibits its higher action. Matter progresses ;—this term is expressive of the development of law, properly termed ; the exhibition of God in matter,—the higher and still higher exhibition of God in matter by this development of law ; this higher and still higher exhibition of the same law. Law was as perfect at the commencement of the present compound cycle as now ; mind now only beholding the comparatively perfect exhibition of its comparatively perfect action.

This fluid in its two natures, positive and negative, has also been named magnetic and electric ; magnetic being positive, electric negative. Central atoms of side organs, as of

central organs, are comparatively perfected atoms, these organs being themselves central organs to systems of their own, in the same sense that central organs are centers of systems; being procreative centers, properly termed. From their nature they are balancing organs of the systems of which they are members. Positive and negative always balance each other in a system, a form or an organ of a form, be that system, form, or organ, a positive or a negative one; as for instance:—Man's positive organs balance his negative; positive hemispheres of planets, suns, balance negative ones; positive suns of systems, balance negative ones. Position of these corresponding organs is always such as to constitute them balancing organs, although law does not always require that they be equidistant as ponderable bodies from central organs, as in the case of the six forms first developed by the central sun. This will appear plain as this branch of the subject is further elucidated.

Attractive force of these central atoms was exercised upon that stratum of the universe where motion, being most rapid, had evolved atoms—subjected them to the action of this force. This was the stratum contiguous to the outer one;—to the one which had evolved the matter of the central sun. Being thus outer matter, it was most rare of any to be evolved. Six suns, centers of new systems, were thus simultaneously formed within the structure of the central sun. This structure was sufficient in size to contain these within it separate from each other when attractive force had completed their forms; and also numerous other embryonic forms in process of formation, to which these were no disturbing agents. So rare were these bodies in comparison with the parent body, that they were no disturbing force to it; no obstacle to condensation of that body.

Ages by periods elapsed while these were forming; while nature's forces were fitting them to take their positions in the universe as perfected forms—qualified organs of that body.

They were in embryo in the womb of nature, until nature had evolved them from this body ; until they had assumed their positions appointed by law. These suns were vast ; infinitely so, as mind comprehends vastness ; centers of systems ; vast, infinitely so. Types of the central sun, they were, like it, to evolve suns ; to perfect their organizations.

The period arrived when these forms were complete—the period of birth. Nature's forces gathered themselves up for the emergency. They were now disturbing forms, preponderating forces, within the body. Attracting matter still to themselves, they became such ;—too massive for the constitution of the parent sun to retain without the obstruction of its currents,—interfering with its condensation. Nature had provided for this consequence of her procreative action by qualifying a force that should act as a repelling force to these bodies the moment they became disturbing forms to the parent form.

Nature's method being to institute forms by parental law—to institute forms within parent forms, she provides, that each form constituted a parent form shall develop forces, which, in appropriate time—when they become disturbing forms, shall repel the infant forms. A universe, being a type of all forms—the lowest type, exhibits the lowest manifestation of this law.

These new forms being universal forms, universal matter acted as the agent to repel them from the parent form ; to impel them to appropriate positions, as independent bodies in the universe. It has been remarked, that Positive and Negative forces acting equally upon a body, its position is unchanged. Until this moment, these forces had thus acted upon these bodies. The attractive force exercised upon the matter of these by the surrounding, and the central matter of the parent body, counterbalanced the repulsive force exerted upon this matter by more nearly affinitized matter—the newly evolved, evolving matter of the universe. A law of matter is,

that affinitizing atoms commingling, repulsive force is developed by these, which preserves the individuality of atoms,—prevents their union.

The affinitizing matter to the matter of these bodies, was that being evolved from the same stratum of the universe which evolved it; but which was sufficiently diverse from it in electric condition to prevent its constituting like matter—matter which could unite with the matter of the forms in increasing their growth. Not sufficiently affinitized to combine in one form, these two qualities of matter developed a repulsive force, each to the other. This repulsive force was the counterbalancing force to the attractive force of the surrounding and the central matter of the central sun; the force which prevented the decomposition of these embryonic forms by this force. Evolved matter from the second outer stratum of the universe was perpetually flowing toward the center in obedience to its attractive force; which matter commingled with the matter of the central sun, obedient to no central power of its own, there being no centers yet developed affinitized to it, and around which it could accumulate. These counterbalancing forces were such, during the entire period required for the completion of these six forms. Being completed, the repulsive became the overbalancing force, thus: Repulsive force of surrounding matter of the parent body was developed to aid that of the intermingled evolved matter alluded to; this force perfecting, as matter of these forms developed, constituted, with the first originated repulsive force, a force which overbalanced the attractive force of surrounding and central matter—a repelling force to these forms.

Positive and Negative are nature's balances: so perfect, that an atom determines the preponderating force. This principle decides the period of birth of forms. The moment an overbalancing atom of repulsive force was evolved, the period of labor of the parent form commenced.

Of rarest matter, these infant forms reluctantly obeyed the

repelling power. Atoms obeyed it according to their degree of advancement; therefore central atoms were the first to commence their outward motion. Parental repulsive force, as this repelling force is termed, originated outward motion. Attractive force, exercised from the centers of these suns, was sufficiently powerful to control every atom belonging to them; atoms being controlled according to their quality and their distance from the center.

The stratum which evolved the matter of these suns was that within which their regulated orbits should be situated; law determined that they should be impelled to positions in this stratum where they should pause in their outward career. The law that determined the expulsion of these forms from the parent form, was that which determined their positions in the second outer stratum of the universe;—the law of parental repulsive force. Universal forms—organs of the universe, which was properly their parent form, they were to take their places within it; or in other words; within the sphere of the central body, as all the strata of unevolved matter of the universe surrounding the central body or commingling with its matter, is termed. Newly evolved matter from this stratum ceaselessly flowing into the central body from all portions of the stratum, constituted the repulsive force originated by it, a powerful one of itself to these forms previous to the evolution of the last developed element of parental repulsive force. This matter was accumulating continually as the process of evolution continued in the stratum; therefore, it was a continually increasing force. It was an overbalancing force to that of the higher matter constituting these forms, in that it was non-disturbing matter within the central body, while that of these forms was disturbing matter; having progressed to that stage that repulsive force was developed reciprocally by it and the matter of the central body. No repulsion existing between this inflowing matter and matter of the central body, while it did exist between matter

of these forms and matter of the central body ; this inflowing matter accumulated in such overpowering quantities in the vicinity of these forms, that the repulsive force developed by it would have been sufficient of itself to have expelled them from the stratum in which they were situated. Being evolved from the body of the central sun, beyond the sphere of repulsive influence of that body, it was by the sole power of the repulsive influence of newly evolved and evolving matter, that they were impelled onward to their true positions in the universe. Matter was continually evolving from this outer stratum, and in such quantities as to constitute it, as it approached the central body on its journey toward the center, toward which it was resistlessly attracted, an overbalancing force to this recently expelled matter ; a force which impelled these forms to their true position. Streams of this newly evolved, rare matter filled universal space from the stratum that evolved it to strata nearly approximating the central stratum of the universe ; these streams being greatest in volume at, and near their source in the stratum which evolved them ; therefore, as these expelled forms receded beyond the sphere of repulsive influence of the central sun, they ceased not their outward motion, the attractive force exercised upon them by the center being overpowered by the repulsive force of this overbalancing mass of newly evolved matter. Reaching the stratum which evolved them—the source of the force which had impelled them there, they paused ; becoming counterbalancing forces to the evolved and evolving matter surrounding them.

Thus are positive and negative forces nature's balances ; thus does nature make room for new formations within parent bodies ; thus do infant forms, though expelled from the parent form, keep their positions within the parental sphere.

These suns, as embryonic forms, had been spherical, and possessed rotary motion. Outward motion developed cometary. These suns issued from the central sun in streams of

rarest substance, in appearance like vapory light, so rare as to be dimly perceptible. Centers—nuclei, first moving, as remarked, first escaping, drew after them all matter subject to them. The motion of these centers was comparatively rapid; they being sufficiently perfected to readily obey the repelling force; that of the subject matter was so, according to its quality. Ages elapsed while these suns were escaping from the central sun, and assuming their appropriate positions in the universe.

Rapidity of motion, is a comparative term. Compared with already established motion, the outward motion of these centers was rapid; compared with subsequently established motion—recently established, it was rest. Traveling an infinite distance in reaching their positions, ages elapsed, as remarked, before these suns reached that outer stratum.

The newly originated cometary motion, was a force which should expedite the progress of these suns; which should be a perfecting agent to matter henceforth. Two motions, atoms of these forms now possessed; both developing agents.

Rotary motion of forms whose matter is volatile, rare, is independent motion of atoms around the central atom in equal periods of time; the period being that of the revolution of the central atom. Rotary motion of the central atom determining that of the form, determines it by the juxtaposition of all atoms of the form. Atoms are spheres; like other spheres, they may meet. In rare matter these spheres do not meet; spaces exist between them. They are, however, subject to each other's attractive influence, so termed; therefore, the motion of surrounding atoms determines the motion of each atom. Alike subject to the central atom and to the influence of interior strata of atoms, which, as they converge, derive their motion from the central, their motion is one—that of the central. The condensation of bodies, perfects this motion; fixes atoms by causing their spheres to join throughout the mass, so that no independent motion is possible.

This is the condition of the atomic matter of solidified bodies. The independent motion of atoms of rare bodies, signifies the susceptibility of atoms or masses of atoms independent of each other to be swayed by outer forces ;—as the susceptibility of matter of these suns to remain behind the central atom in its outward course. All atoms of solidified bodies obey the central, simultaneously, equally, being fixed ;—not subject to outer opposing forces like rare matter, from this cause. Their spheres meeting, they are subject to each other's attractive force ; and being affinitized—affinitized atoms only assuming juxtaposition—they are powerful to retain each other in position ; and as masses, to resist outer opposing forces. The attractive influence exerted by spheres upon each other, being distant, is a slight degree of attractive force : not sufficient to retain each other in position, or prevent the disturbing influences of outside forces. Atomic matter revolves around centers in all directions, not being fixed. Independent atoms, are such, from the fact of their isolation, so to speak, from each other ; attractive influence being unable to control atoms, to fix their revolution in one direction, or prevent their following the direction of strongly affinitized atoms. In rare bodies atoms revolve in currents in all directions ; the general direction, however, being the same. The motion originates from an impulse propagated in an opposite direction to that of the motion, as terms are used. Rather : It is the repelling power of an opposing force which impels the atom—central atom, the originator of this motion in the direction it revolves. The accumulation of atoms around the central atom in great, and still greater numbers, causes atoms to crowd each other in every direction ; not, however, to change the general direction of motion. This is perfectly illustrated by the revolution of a ball partly immersed in water, or upon which water is poured. Atoms, masses of the fluid, are thrown in all directions from the center ; yet the general direction is the same as that of the ball ; and could

their times of revolution be measured, they would be ascertained to be that of the ball—the central atom.

It has been remarked, that affinized atoms arrange themselves in juxtaposition on bodies in process of formation. The similarity of all atoms forming a sun, signifies a degree of similarity, a sufficient degree to determine that such atoms shall constitute the same form—shall determine to the same center. However, variety characterizes every form: not only are these grades, strata, of different qualities, but there are also grades of grades, subdivisions of grades. In all forms, atoms are of infinite variety. Therefore, it will be understood how currents of atoms of nearest affinity will exist in rare bodies; how the direction of these currents will be determined by each other, and by currents of the highest quality of matter of the form. The perfect illustration of this truth is only exhibited in the revolution of cometary matter—the rotary motion of cometary bodies. Currents, like atoms, become fixed in condensed, solidified bodies. The direction of highest currents determines the direction of the whole mass when atoms become fixed—the body becomes solidified. These follow the direction of the original impulse; which, in nature, is always the same—from west to east; the inherent forces of matter, by virtue of relative position of atoms—of positive and negative, acting to impel in the direction of the negative, or toward the east. They do this by virtue of their superiority of force, and of condensation; they acting as a central mass and propagating their force throughout the entire structure. This independent motion of atoms of rare bodies around the central atom—with it, is termed the atomic motion of the body. In solidified bodies, atomic motion is the similar revolution of atoms, and currents of life forces developed by these same atoms, and currents, which, in rare bodies, themselves revolve, having, as yet, developed no life forces. This revolution of atoms, this volatility of matter, is

chemical action of bodies ;—the developing force which determines condensation.

As atoms move among themselves, friction of spheres of influence—which is friction of atoms, as will appear in the elucidation of spheres in this work, elicits atoms of yet unevolved elements or forces, from atoms ; which atoms, as elicited from evolved matter, are higher, more strongly developing forces, than other unelicited atoms. Action proceeding, newly evolved forces evolve other, still higher ones. These acting upon each other and upon original atoms, develop attractive force. This is the progressive development of atomic motion of bodies ; not the stimulation of motion of atoms. Rotary motion is of the same quality, from the first institution of a form—the impregnation of the central atom, throughout its existence as a form. It is the progressive development of atomic motion of forms which induces all progress of forms. Attractive force being progressively developed, atoms are acted upon with greater and still greater power. They approach each other in obedience to this force, the highest atoms exerting the strongest force. This is condensation of bodies.

Outward motion of these suns, induced by parental repulsive force, was a developing agent ; being a new motion of atoms, an added motion ; one which induced variety of motion of atoms of these forms—of the same atoms, around their centers, and outward through space—strata of unevolved matter ; inducing a degree of action of such matter upon them, which aided in perfecting atomic motion of the forms. The inducement of variety of motion of atoms around their centers, is consistent with the principles already asserted, which govern the rotary motion of bodies—the revolution of atoms of these around centers in equal times.

Cometary motion is the forward motion of a body whose atomic matter is rare, volatile ; this condition determining the center, or nucleus, to be in advance of the other matter

of the form. Rapidity of motion produces this condition—cometary motion. Repulsive force exerted upon the completed forms, acted with greatest power upon central—highest developed atoms. It was itself an unperfected force; one which progressed as atoms evolving it, and atoms upon which it was exerted progressed. It was also to be a ceaseless force, continuing in operation while the forms should exist; perfecting itself as the forms should be perfected. It was the originator of orbital revolution—revolution of suns around the central sun, of other formations around parent centers;—a motion which henceforth should be an indispensable motion of all forms. Outward motion originated by this force, determined forms to their positions in the universe, in spheres evolving them.

These suns, as balancing forms to matter of the second outer stratum of the universe, found their positions in that stratum. Outward motion of the centers continued, until they had reached their true positions; other matter following, obedient to the power of the centers, and also to that of the impulse. Outer atoms moved with reluctant motion, being imperfectly subject to either force. The repelling force acting upon these, was an undeveloped force, as it acted from undeveloped atoms upon such. The entire force was, in its action upon these forms, as the action of a mass of superior weight, and vastly superior bulk;—the superiority in weight arising from superiority in bulk, not from quality of superiority of atomic force; and exerting its power as center upon center, or quality upon quality. Unformed matter it was, acting upon forms; therefore it was of vastly superior bulk, being in equal degree undeveloped, in comparison to the forms upon which it operated. Unqualified force acting upon unqualified, outer atoms could not be impelled to the position of the center, or their true position around it; the centers were the assistants of the repelling force to aid this undeveloped matter in reaching its destination. All matter of a form being

subject to its center, it would follow where this led. The best qualified impulse acting upon the highest quality of matter, as remarked, centers moved first. They not only first moved, kept in advance, but they also gained upon the motion of outer atoms according to the degree of qualification of the impulse compared with that exerted upon outer atoms combined with the power exerted over these atoms by the centers. The degree of difference between these would have carried centers entirely beyond, out of the reach of outer atoms, but for the rotary motion of the forms—the revolution of all atoms around their centers. Centers—nuclei, were not single atoms, as here spoken of; they were central atoms with strata of atoms surrounding them condensed to that degree that they were not subject to cometary motion; fixed to that degree that they obeyed, perfectly, central force. Strata of less, still less condensed matter surrounded this; less and still less subject to the central power; more and still more free to follow the direction of affinized atoms around the center. Central atoms propagated their force to surrounding atoms; these to the next stratum, these outward; thus attractive force was propagated throughout the mass; thus, as each stratum outward was less qualified matter, its force propagated to the next, was less. Thus it is plain how outer strata were the least subject to the central force.

This is perfectly illustrated by a system of balls in spheres or strata. The central ball is attached to the first stratum, or sphere, by short cords; too short to admit of any change of place of the balls by the motion of the central; to these is attached the next stratum by short cords, the difference of the length of the cords not being discernable, a slight difference, however, existing; these would retain their places about the central ball with the interior stratum. The next stratum is attached to these by slightly lengthened cords; thus the cords attaching each stratum to the next interior ones are longer than the preceding. This system shall be sufficiently

large, that the cords attaching the outer stratum shall be sufficiently long to carry these far behind the central ball as it moves obedient to an impulse acting upon it alone. It is evident that the central ball will impel with itself those attached to it by the shortest and shorter cords, while the outer and outmost strata remain unmoved. Fixed central matter is represented by the fixed central balls; volatile, rare matter, by those attached by long, longest cords. The motion of the central ball would necessitate the motion of all; yet they would obey that motion dependent upon the length of the attaching cords.

This is an imperfect illustration of nature's action, as no revolution of balls can be induced; yet it is a perfect illustration of the action of attractive force as propagated from central atoms, as binding all atoms of a form together; and of the form induced by the precedence of motion of the center of a volatile form.

Rotary motion—the independent motion of atoms, preserved these formations from disruption as centers outstripped outer matter in their outward progress; thus: This motion of atoms was a propagated motion; as attractive force was a propagated force; impulsion moved atoms that were reluctant to obey attractive force. Spaces widening as atoms fell behind their centers, attractive force was less powerful upon them from surrounding atoms; they would consequently move less rapidly. Had there been no revolution of atoms, as remarked, these spaces would have continued to widen until atoms could have exerted no power to retain outer atoms on the body; the cords would have been severed, binding these to sister atoms. These spaces could not sufficiently widen to induce this consequence. Impulsion—the continual onward movement of atoms impelled by attractive force of affinized atoms, or by repulsive force of unaffinized atoms, compelled the movement of all atoms around the central. Repulsive action of atoms in impelling each other

around the center, was the result of the commingling of currents which followed the displacement of strata or of currents, by the priority of outward motion of the nucleus, its more rapid motion,

It was utter confusion in these masses of outward moving matter. Atoms obeyed the impulse and the central force, according to their quality; not the direction of currents of affinitized matter; all inferior forces yielding, under the pressure of the new motion, to these superior ones. Did spaces widen between adjacent atoms as they receded from the nucleus, being partial currents of affinitized atoms, in forced juxtaposition with these partial currents were currents of unaffinitized atoms forcing each other along; narrowing spaces by repulsion, by the impulsion received from behind. Mingling throughout the mass of rare matter following the centers, these opposing currents operated upon each other as impelling forces, attractive and repulsive; which alone enabled matter to preserve its position on the body as it rounded the extremity of the form—the tail of the comet, so termed; alone preserved these bodies from dismemberment. These forces had only sufficed for this purpose; they had not sufficed to produce an equilibrium of motion of atoms, or of the same atom. The onward motion of atoms had been slower, and still slower, as they receded from the center, neared the extremity of the form. As they approached the center in their progress around it, their motion was more, and more, rapid. Impelling forces prompted this. Nearness to the center of all atoms of a form, in passing around it forward of its direction of motion, was compelled by this impulsion of motion; this determining of the greater mass behind the center. This scarcity of matter forward of the center, was scarcity of rare, unqualified matter; consequently, as atoms came in contact with qualified attractive and repulsive forces, though unqualified atoms, they were acted upon with greater power than when acted upon by unqualified forces,—as unqualified

acting upon unqualified. They were impelled onward with great rapidity while in contact with these highest forces of the body. Gradually coming in contact with less qualified forces, the motion of atoms, which had fallen slightly behind the center, was retarded.

Thus all volatile matter of these suns was retained by them. Thus atoms revolved around centers in equal periods of time, possessing variety of motion of atoms, and of the same atom. Nature's method was to impel progress by this variety of motion of atoms, this intermingling of diverse forces. Chemical action induced by the described motion of atoms of these suns was cometary motion; the newly developed agent for their advancement; an agent which henceforth should act in the progressive development of all forms.

It was nature's method, as atoms act as outside forces upon each other—attractive and repulsive, bodies should thus act; that as atoms aid each other in retaining their places upon bodies in performing their revolutions around their centers, bodies should thus act; should aid in perfecting each other; in the equalizing of each other's motions; in the qualification of each other's orbital motion. Outward motion of these suns, was the inauguration of orbital motion. The method was, that repulsive influence of the opposing forces should continue while they were opposing forces; while forms should exist; should impel these bodies forward ceaselessly, whatever minor force might be exerted upon them from whatever direction. The true positions of these suns were in the second outer stratum of the universe. This signifies that the impulse would have carried these bodies, undisturbed by other forces, to these positions. Nature had provided qualifying forces, developing agencies, to act upon these suns; agencies which should act in concert with the impulse, orbital revolution and rotary motion. These forces were the suns themselves acting upon each other; and suns of contiguous universes; which, in their mighty revolutions of ages, in the

eccentricities of their motions, should approach these sufficiently near that their attractive influence should be felt.

Spheres may touch each other, but never commingle; this signifies spheres of attractive force, as will appear in the full elucidation of the subject in a future connection. This principle holds throughout nature, from infinitesimals to infinities; from the most minute atom, to God. Atoms join spheres as condensation ensues; bodies join spheres as progress develops them; mind follows the same law. Atoms, bodies, intelligent minds—together forming the outer of Deity—with the Deific mind, are as the connected body and mind; connected, but unobtrusive; as spheres they meet, but never commingle. Universes are nature's lowest forms. Outer matter of these is of such a nature, so undeveloped, that the eternities of the past have not sufficed to awaken sufficient action in it to induce formation; however, it is matter, and attached to separate forms, it is subject to the law of central force; all universal matter however rare, being subject to centers. As matter of spheres of attractive influence, so termed, it is susceptible of disarrangement by the intrusion of similar spheres. This will also appear in the future discussion of the subject.

Universal primeval matter, with that composing the central sun was of the first grade, so termed; it rotating around the central atom with the same degree of motion. These newly evolved suns, being of this matter, yet of stimulated motion, were of the second grade, so termed. It has been remarked of unevolved universal matter, that it is inappreciable to the physical sense; this is true of unevolved matter of every grade; the evolution of matter from one grade to another does not change its nature in this respect. The physical sense could have taken no cognizance of these forms within the central sun, until condensation had so developed matter that it became substance, as physical senses comprehend. The central sun was a type of all suns in every sense. The central atom of the universe, the form of which it was the central

organ, attracted matter from the outer stratum of that form — of the universe, to form this sun. Thus were formed central bodies to the suns, or properly, spheres, which were formed within this sun. Condensation commenced within these forms prior to their evolution from the parent form. Central atoms drew most perfected atoms to form a central body, which atoms were, as in the case of the central sun, and from the same law, from the outer stratum, consequently the most rare within the body. This was a second evolution of this matter; but no stimulation of motion, as rotary, attending it, it is said to be of the same grade subsequent, as prior to its second evolution. This evolved matter, this central mass, was slightly more perfected than that unevolved commingled with it around the center; so slightly, that outer atoms of this evolved matter acted upon each other with but a slight degree of superior force to those unevolved commingling with them; yet, being evolved, subject to this slightly superior degree of attractive force of each other, slightly more susceptible to the power of the central atom, condensation of these gradually ensued. Atomic action of these gradually perfected until a central body was formed, and procreative force was therein developed and qualified, until it was made an instrument for the evolution of the unevolved matter of its sphere.

At the period of the evolution of these suns from the parent sun, the central formations of these suns had been commenced, not completed. The impulse which evolved these from the parent sun, acted upon all matter of these forms; that unevolved, as that evolved.

That the reader may fully comprehend the nature of unevolved primeval matter, a fuller explanation is necessary of the nature, the grades, the quality, of this matter.

Unevolved primeval matter, signifies the uncondensed matter of the universe (that matter hitherto unevolved by chemical action into appreciable substance) which was stimulated at the introduction of the present period of action. It is of seven grades, corresponding to the grades of suns. Univer-

sal unevolved primeval matter, so designated, is that of the lowest, the first grade, termed ; and also that unstimulated at the introduction of the present period of action. Stimulation of motion of universal matter was stimulation of motion of such matter only as was susceptible of stimulation by the imparted impulse ; it was a stimulation of motion of one grade, so designated, and as will hereafter appear ; leaving unstimulated, unaffected, the motion of the infinite number of grades below this grade. This unstimulated matter is the medium already referred to, termed the sphere of attractive influence of contiguous universes ; which indissolubly connects them, and is the medium by which the motions of their outer formations are regulated.

The stimulation of motion of universal matter, as remarked in a former connection, was evolution of this matter. This stimulation of motion of all the matter of this evolved grade was sufficient stimulation to insure the development of a central body ; to insure the evolution of the highest grade from this evolved grade. The highest grade, as spoken of in this connection, signifies that matter which was subjected to the greatest degree of motion by the revolution of the universal sphere—outer matter of this sphere, and central atoms evolved from more interior matter. By outer matter in this connection, is signified the twelve strata of universal matter already alluded to, and which evolve formations, occupying the universal sphere exteriorly to that plane bounding the repulsive sphere of the central sun when it becomes a perfected body ; or two thirds of the sphere. Motion of these twelve strata of the universe was sufficient to cause the evolution of this one grade, above alluded to, by the impulse, the stimulation imparted by the re-awakening of Electric Force after a period of inaction—an eternal night of repose. Electric Force, which from eternity acted upon matter by stimulating its motion periodically, failed to again stimulate the motion of this evolved matter, so low was its quality, until matter of the central body had been evolved as physical substance

from the outer stratum of the universe by virtue of its revolutionary motion—by virtue of the action induced in this lowest grade of primeval matter by the revolutionary motion of the sphere, and this matter was condensing around the central atom. It was during the third stage of development of the central sun that motion of this evolved grade was restimulated—that Electric Force again imparted an impetus to its already existing degree of motion. This stimulation was felt by all matter of these twelve strata, this impetus imparted to all atoms of these; yet revolutionary motion was the agent of nature for the evolution of matter after stimulation of motion had prepared it for evolution—had made it sufficiently susceptible to the effect of revolutionary motion to induce evolution. Stimulation of motion inducing evolution of forms by this method, is the development of grades of unevolved primeval matter—of orders of suns, as will appear.

Nature's methods, determined by law, are always adapted to the end in view, to the plan of the Great Architect. Her method was, that the universal sphere and the six orders of spheres—suns, should evolve twelve formations each; that the eleven formations developed by parental law by the central formation of each sphere of each grade should be developed by the same degree of stimulated motion;—should result from the first impulse given to matter of a sphere subsequent to the evolution of that sphere—the partial condensation of its central formation. Impregnation—the stimulation of central atoms of the forms of these formations, as has been remarked, is stimulation of motion at the period of the institution of the form—the period when these become qualified centers, in every sense, of new forms; yet, not stimulation in the sense signified when unevolved matter is stimulated—when its motion is increased by the impulse imparted by the re-awakening of electric force. It is stimulation resulting from evolution. The evolution of atoms, signifies, in an unqualified sense, the combination of elements

of such qualities, grades, as may combine from the effect of chemical action of their atoms ; which combination results in an atom — a particle, appreciable to physical sense. This combination results in the quickening of atomic motion of all atoms thus combining ; therefore, it is appropriate to term the motion of the newly evolved atom stimulated motion. Human language is void of terms for the appropriate expression of nature's complicated truths, laws, methods ; therefore, misunderstanding of the above complicated, yet true, perfect theory of nature's action in the institution of universes, and minor systems, is possible to occur. The reader is cautioned to study, most carefully, the exposition above given, with what follows, and what may hereafter be given upon the same subject in connection with it, that he may get a perfect understanding of the subject.

Stimulation of motion, and evolution, are terms here necessarily applied to the enunciation of two distinct methods — processes of nature, each. Stimulation of motion of atoms of unevolved primeval matter, resulting simply in an increased degree of motion of those atoms, is an Electric stimulation ; an impetus imparted by the Deific Force of nature ; it is the operation of the law of Deific Being ; the promulgation of the plan of universal development. Stimulation of motion resulting from combination of elements in the evolution of atoms of physical substance, is the development of a higher form of physical electric force, properly termed ; a force which results from the operations of Deific Electric Force upon matter, but is not that force. Evolution in a qualified sense, and as applied to the operation of Electric Force upon primeval matter of any grade which stimulates its motion but does not constitute it appreciable physical substance, is termed evolution from want of a better term. Matter thus operated upon is only evolved in the sense, that it is separated from surrounding primeval matter in the sense of being higher matter — possessing a higher quality of motion. Still primeval, still unevolved in the unqualified sense, it is henceforth sus-

ceptible to developing influences ; is in the road to evolution, as has been above explained.

From the above explanation it will be perfectly evident to the attentive reader what is signified by a first and second evolution of matter, a stimulation resulting in increased motion of the atoms of the twelve strata of a sphere, and that stimulation termed impregnation of central atoms.

The central sun, a form resulting from the first stimulation of motion of universal matter, is of the first grade. The central atom of this central formation of the universe, stimulated when motion of all atoms of the universe was stimulated, was evolved, only, after untold ages of revolutions of the universe had sufficed to induce sufficient chemical action of it and surrounding atoms to induce its evolution. Impregnation of this central atom of the universe occurred when it was constituted, so to speak, an atom—a particle of matter ;—when it was evolved as appreciable physical substance ; as impregnation of all central atoms occurs according to the exposition already given.

The central atom moved with stimulated motion, condensation of the central sun occurred in consequence ; this was stated in the introduction of the subject of the development of the universe. That atoms moved with an increased degree of motion, was also stated. Could the human mind, in its first stage, comprehend infinity— infinite periods of time, the infinite number of grades or qualities of motion ; and were there terms in human language by which to express infinite periods of time, the infinite number of grades of motion, different expressions might have been used ; appropriate terms substituted ; but the existing condition of mind to which the truths set forth in these pages are addressed, being considered, the method pursued is deemed best calculated to convey a perfect understanding of truth, of the principles of nature hitherto concealed from mind in the first sphere.

Suns evolved by parental law by the central sun, being evolutions of matter resulting from a second stimulation of

universal matter, are of the second grade—the first order, so termed; those evolved by this order resulting from a third stimulation of universal matter are of the third grade—the second order; those by this order resulting from a fourth stimulation of universal matter are of the fourth grade—the third order; those by this order resulting from a fifth stimulation of universal matter are of the fifth grade—the fourth order; those of this order resulting from a sixth stimulation of universal matter are of the sixth grade—the fifth order; those evolved by this order resulting from a seventh stimulation of universal matter are of the seventh grade—the sixth order.

Stimulation of motion of universal matter, as has been incidentally remarked, occurred periodically, from eternity. From eternity each periodical impulse was a stronger impulse than the preceding, as matter upon which it acted—through which it was developed, was higher. It has been stated that a single impulse—one stimulation of motion, induces development of all suns of a single order, or grade. This is true in the sense that the motion instituted by this impulse is the degree of motion which institutes these forms; therefore it is true in its perfect sense; and yet it is equally true that each successive impulse acts upon universal matter as a stronger impulse. This apparent inconsistency is nature's consistency. A developed impulse—an impulse developed through qualified matter, can not operate upon unqualified matter to stimulate its motion for the ordinary purposes of carrying on the process of development of forms in a period of action, any more than the higher electric fluid eliminated by atomic motion of spiritual substance can operate upon low physical substance for this purpose. Electric action resulting from chemical action of this spiritual substance is electric stimulation of such matter only, as is susceptible to such action.

The third stimulation of universal matter, signifies that an impulse was developed through the second grade of universal matter which resulted in the evolution of the third, as the

first stimulation of motion of universal matter resulted in the evolution of the first grade ; the second stimulation of matter developed through the first grade resulted in the evolution of the second grade. The seventh stimulation of motion of universal matter, signifies that the impulse developed through the sixth grade of matter of the universe acted upon that matter to evolve the seventh grade. The impulse which evolved the second grade acted upon all matter of the twelve strata of the universe, as remarked. Prior to the development of this impulse, the central sun had been evolved from the outer or first stratum of the universe ; therefore the impulse acted upon the matter of the first stratum in the form of evolved matter ; acted upon it being organized matter. The central sun was acted upon by the impulse as a form, the stimulation of motion of its atoms resulting in the stimulation of its progress as a form. The effect of the impulse upon this form was to institute an era in its development ;—to constitute the central body of the universe a form susceptible of impregnation. The precise period of the occurrence of this impulse was the precise period which developed the procreative power within the central sun — the moment that constituted it a form susceptible of impregnation ; which was during its third era. In like manner, the impulse developed through matter of each grade affected all matter of the twelve strata of the spheres of that grade, developing, in like manner, the procreative power in the central bodies of those spheres.

Nature works by impulses, and minor impulses. Her method is, compound cycles, cycles, eternities, eras, divisions and subdivisions of eras, divisions and subdivisions of subdivisions of these, and still subdivisions, until the minor subdivisions of seasons is reached ; the subdivisions of these until the minor periods of man's needed rest and action is reached—day and night. Of minor impulses—those minor to those evolving grades above delineated, a full exposition will be given in the elucidation of the principles of the development of suns and planets, the cometary, and planetary eras of suns.

The impregnation—the evolution, of the central atom of the universal sphere constituted that atom the central atom of the universe as a form, in the same sense that the impregnation—the evolution, of a central atom of any form of any grade constitutes that atom the center of that form—that sphere. The universe is a sun in the same sense that the solar system is a sun; is a form in the same sense that the sphere denominated the solar system, of which sun and its circling planets are members, is a form; and was evolved, in precisely the same manner, and by the same law. The first stimulation of motion of the central atom of the universe did not, in a true sense, constitute this the central atom of the universe; but only in a qualified sense. From eternity it was the central atom, being, as before stated, the atom of highest quality in the universe. Yet, as remarked, in a qualified sense, its stimulation constituted it the central atom to universal matter—all that which was with it stimulated, in that, from the moment of its stimulation it became a more powerful agent for the government of this matter; in that, a degree of attractive force was produced by this stimulation which insured sufficient action in universal matter to determine its subsequent development. Attractive force is the agent which binds in one, all nature; which binds all nature to God; which makes one, the universe and its indwelling Deific Center. This force, so feebly developed by this first impulse, bound all matter of the evolved grade more firmly to the central atom, the agent for its advancement; as each progressive impulse in matter or mind binds that more closely to the Great Center to which all atoms of universal matter are resistlessly tending.

Unevolved was this central atom, as well as all its dependent atoms, for the ages, until chemical action had sufficed for its evolution; yet attractive force of this atom was sufficient to control, by the law of propagated force, every atom of the universe. When evolution at length occurred—when this atom was constituted the center of an organ of the uni-

versal form, it was no less the center of universal matter, possessing no less power over this matter than prior to its evolution. Its power over unevolved matter, being an evolved atom, was not increased, by virtue of the same principle that determines that a qualified impulse can not appreciably stimulate unqualified matter. The law of affinity determines the power of atoms upon each other—impulses upon matter. An atom of high quality can not control one of low quality.

Subsequent to its evolution, this atom was affinized to universal matter sufficiently to control it to the same degree that it did prior to its evolution. Its motion being stimulated, atomic, as well as rotary, it evolved a sphere of matter from the elements composing its substance through which it still governed universal matter. This was its lowest quality of matter;—the elements entering into its constitution which were most unaffinized to the greater mass of its substance and most nearly affinized to surrounding matter. These elements—atoms, were repelled from the greater mass, the most highly developed ones immediately surrounding the perfected mass of the atom, the most undeveloped ones taking position farthest from this, and in proximity with surrounding unevolved matter. These outer atoms were sufficiently affinized with this unevolved matter to act as an agent through which that matter could be controlled. This sphere of lower elements of the central atom, is termed its sphere of attractive force; and is also its sphere of repulsive force. Atoms are attracted to the verge of this sphere of the central atom and thus controlled by it, by means of its sphere of attractive influence; which, like that of a body, surrounds it; being eliminated by it as this sphere is eliminated by the atom itself. This sphere is repulsive to outside matter; therefore, it is termed the sphere of repulsive force; as it is attractive to outside matter, being termed the sphere of attractive force. It is through this sphere, therefore, that is propagated the force of the central atom;—the force which holds the matter of the central sun in form; holds the universe in form; and

through this sphere is propagated the motion of that atom to the outmost limits of the universal sphere. All atoms, all bodies, possess spheres of attractive and repulsive force, eliminated by the same law that the central atom of the universe eliminated its spheres of attractive and repulsive force, and for the same purpose.

A center is impregnated—a form instituted; matter from a stratum of the sphere within which this center is situated is attracted to it and takes its place around it as matter of the newly instituted form:—This signifies, in language deemed best to convey the true idea, that matter now first surrounds it as a qualified center—an evolved center; a center exercising sufficient attractive force to insure the evolution of all evolvable matter of its sphere. Prior to its evolution—from the period when procreative force was first developed within its parent's form, affinitized unevolved matter—this same matter now surrounding it, had been gathering around it from a stratum of affinitized matter. As an unevolved central atom, it had possessed power to control this matter; yet being unevolved, not yet possessing independent motion, but rotating with surrounding atoms around the central atom of its parent sphere, it had not power to control it in the sense that it did after independent motion had been developed by it within the parent body, or after it ceased as an atom to rotate with surrounding atoms around its parent center, which independent motion resulted from its evolution.

Revolutionary motion of an evolved central atom ceases by virtue of the action of equal forces upon it, attractive and repulsive. These forces are equally operative upon it; thus: Situated where evolved and unevolved matter commingles, it being of a grade sufficiently diverse from either of these grades or qualities to constitute it the recipient of an equal amount of force from either, unevolved matter repulses it, it being evolved; while the surrounding matter of the central body repulses it, it being but newly evolved—so undeveloped, as compared to that; again: Unevolved matter attracts it, it

being newly evolved, and somewhat similar matter ; surrounding matter of the central body attracts it, it being evolved and somewhat similar matter. This action of the two qualities of matter within which an embryonic form is situated, this action of the two forces exercised by both qualities, in equal degree by the same quality, causes that form to retain position where the central atom was situated at the period of its evolution.

The development of procreative force within a form, which, as has been stated, occurs during its third era, signifies that atoms of interior strata, during that era, become sufficiently perfected to act as centers according to the above exposition ; but not to control matter for its evolution, as is done by these centers after their so called impregnation—the cessation of their rotation around the parent center, which results from this impregnation. The confusion resulting from the comingling of the matter subject to these centers with all other matter of the parent body in its revolution around the parent center, it being cometary matter, effectually prevents the control of this matter for its evolution ; therefore the proposition above stated is appropriate ; viz : A center is impregnated — a form instituted ; matter from a stratum of the sphere within which this center is situated is attracted to it, and takes its place around it as matter of the newly instituted form.

From what has been stated on the subject of evolution and the formation of spheres, it will be evident to the attentive reader, that the evolution of physical substance from the unevolved matter of all spheres commences after the, so called, first evolution of this matter ;— after it has become sufficiently perfected by ages of motion induced by the revolution of the sphere within which it is located, to become subject to central atoms ; or not until after the completion of the sphere or sun ; or after all matter to compose it has been made subject to, and is collected around its center. Succeeding ages of revolution are then required to evolve physical substance from the outer stratum of the sphere ; to evolve unevolved spheres,

so to speak, from the successive interior strata, as is the law of development of spheres.

The patient investigator of nature's laws, wonderingly inquires by what law it can be that the outer stratum of a sphere evolves physical substance for the formation of a physical form differently from interior strata; which, from the above proposition, he perceives is nature's method.

Uses are the ends of all God's methods—the highest uses. The promulgation of the plan of the Divine Architect of nature, proves that plan to be the perfection of wisdom; proves the existence of the Divine Mind—the organized intelligence termed God. Finite mind pauses in consternation at the depths of wisdom which open before it in its investigations of nature; and cries: It is enough! as the dim vistas open before it through which it must labor at the expense of brain and muscle to grasp the truths scattered so thickly through them;—is weary as it contemplates those few spaces—vistas of thought, into which it has had a glimpse, out of the infinite number which it sees in vision before it. "I have found it," exclaims the diligent student; but no sooner has he grasped the found treasure—the gem of truth, than he is startled by the certain knowledge that he has not found all of it. From this one truth, proposition after proposition presents itself to his mind for demonstration; problem after problem; the solution of which will require the finding of many more as important truths as the one first found. And thus he finds no place to pause. And thus never will mind find a place to pause. As God is infinite, as truth is infinite, so mind is infinite in its capacities and in its duration, for the investigation of truth—for the service of God.

Outer sections of spheres—outer strata, revolve with an inconceivably greater degree of motion than interior ones; this is evident. The motion of the outer stratum of the universe, as the outer section of a revolving sphere, was in such an infinite degree greater than that of the central atom, as the interior section of a revolving sphere, that it sufficed for

the evolution of this outer matter to the physical during the inconceivably vast period which elapsed while the central atom was preparing for evolution, and being evolved. This is the principle upon which all central bodies are developed. Unevolved matter surrounded the central atom, being controlled by it, as it surrounds every central atom, according to the exposition given of this subject.

The development of parental law necessarily preceded that of forms. This law, coexistent with the being of God, was developed as law determining the evolution of universal primeval matter into physical; physical into all the forms which God ordained should be developed from this matter, by the institution of a central body—a parent, through which organization, all universal matter should be developed into form by the law of procreative force. As this law was developed in the universal sphere by the institution of a central body through which, by the parental law, all matter of that sphere could be developed into form, so it is developed in every sphere, which the universal sphere evolves.

The outer stratum of any sphere is of greater depth, by far, than any other stratum of the sphere; contains a mass of matter greater than the entire mass of all the remaining strata of the sphere; besides, being rarest matter of the sphere, it occupies broader space in consequence. Being of one quality of electric condition, it composes one stratum and is evolved together, as matter of any stratum is evolved; and forms one formation, as does matter of each stratum of a sphere.

The evolution of the evolvable matter of a sphere is nature's method for preserving the order of the universe—the harmony of the spheres. It has been remarked, that the stimulation of motion of universal matter was only the evolution of a single grade of the infinite number of grades of primeval matter. This grade being stimulated, it is constituted such diverse matter from that unstimulated, that its action upon this lower matter henceforth is insufficient to induce its stim-

ulation—its development, by nature's processes during the existing eternity of action. This lower matter is constituted matter incapable of further appreciable development during the existing eternity ; yet, according to nature's Divine method, its use is as important as that of evolving, progressing matter.

The spheres of attractive force and influence of universes and minor spheres, are constituted, as has already been stated, of this matter.

Spherical matter constituting the body of a system—the spheres of attractive force and influence, is of two grades of force ; systems of every grade possessing the two qualities or grades of force of this matter ; thus : The denser quality of spherical matter of any sphere being able to prevent the intrusion of other spheres within it, is termed the sphere of attractive force of the system ; while the rarer being unable to resist the intrusion of other spheres, though yet a protecting force to the system, is termed the sphere of attractive influence. The evolution of the evolvable matter of the outer stratum of a sphere—that matter constituting the central body of a sphere—leaves a rarer quality of unevolved matter in that stratum than is left by the evolution of the evolvable matter of any other stratum of the sphere. This matter is too rare to resist the intrusion of spheres of attractive force of other systems, and is termed the sphere of attractive influence of the system.

During the period of the evolution of the bodies of a system, all matter of a stratum from which matter has not been evolved, or has been but partially evolved, constitutes the sphere of attractive force of the system. Previous to the evolution of all the evolvable matter of the outer stratum, the sphere of attractive force of the system is coextensive with the system ; while subsequent to the evolution of this matter—during the whole period of the existence of the body, it is coextensive with the eleven interior strata of the system. This arrangement insures the safety of systems, while it

insures the possibility of the development of its outer formations.

Spheres of attractive force and influence are subject to centers like the evolvable matter of the sphere. The sphere of attractive influence surrounding all spheres, being cometary and subject to centers, accommodates itself to the motions of the spheres to which it is attached; therefore it is an ever effective agent for the regulation of the motions of outer bodies of spheres. Systems bound systems on every side, as stars—suns, bound stars in the visible heavens. Universes bound universes on every side, the motions of whose outer formations are regulated by each other through the medium of the spheres of attractive influence of those individual universes, as the motions of outer formations of minor systems are regulated. The simultaneous development of all universes is, therefore, evidently a necessity. God is one; and as one acts upon His universe. The impulse imparted by Deific Electric Force, also termed the Deific Impregnating Force, which stimulated matter at the beginning of the present eternity of action, was a universal impulse; acted upon all matter of the Deific Body. Thus with every impulse imparted to matter by this Deific Action, or by any grade of electric force, each is as universal as the Body of God is infinite in extent; acts upon all matter of that Body of a grade to appreciate its action. Thus the successive stimulations of matter developing suns, ushering in eras, minor eras, seasons, minor seasons, man's periodical seasons of action—days, are universal stimulations—impulses, felt throughout the infinite universe of matter, and by the vast family of intelligent, spiritual beings inhabiting this universe.

Nature so ordains laws that they act in harmony; one law being necessary to the establishment of all, and all of one; so body is ordained to act upon body; the development of one necessitates the development of all, and all of one. No atom could have been spared from the universe of primeval matter; no atom can be spared from the uni-

verse of evolved matter ; no more can one body be spared from that universe. Disorganization must follow should the most insignificant planet of the remotest system be blotted from the universe ; does follow, when the equilibrium is lost by the spiritualization of matter of one planet in excess of that of its corresponding planet ; or of one system in excess of its corresponding system ; spiritualized substance being imponderable upon the physical plane.

Six suns simultaneously taking positions in the universe, acted as assistants in the regulation of each other's orbital motion, by the attractive influence each exerted over all others in the course of its revolution around the central sun.

Until qualifying agencies regulate orbital motion, it is eccentric. The impulse having repelled these suns to their positions in the universe, ceased as an outward propelling force. Henceforth it would have acted as the onward moving force, impelling these bodies in their proper orbits around the center, had all bodies, all agencies, then been perfected ones. It was simply the moving power acting upon the plane of their orbits, having impelled them to this plane, and upon no other. It was not a counterbalancing force to attractive force of outer suns, therefore could not regulate orbital motion.

Reaching their proper positions within the sphere of the central sun, these suns found themselves within the spheres of attractive influence of other spheres—universal spheres, in contact with this their parent sphere ;—attractive influence of spheres being matter of so rare a quality, that it may enter spheres of attractive force, as already explained. Of such exceeding grossness, that it was not subject to the law of formation ; yet, this matter affinized sufficiently with spherul matter of these suns to overcome the parental attractive force exerted upon it from the center. This was attracted to the extremity of the universal sphere.

Spherul matter, that composing the spheres of attractive influence of the contiguous universes, commingling, though of such exceeding low grade, constituted a force of such a

grade as to act upon spherul matter of these infant suns to divert it, as remarked, to the extremity of the universal sphere. Chemical action resulting from the commingling of diverse elements—of this same quality of matter of two diverse spheres, produced motion—attractive influence, sufficient to overcome the weak attractive force exerted over this matter by the rarified sphere of attractive force within which these suns were situated.

Mingling with the rare matter of these spheres of attractive influence of the disturbing universal spheres, was that of similar spheres of corresponding suns within those universal spheres, which were being acted upon as they acted upon these. The spheres of attractive influence of these suns commingling, it was the commingling of higher forces; forces which could be propagated to the central formations of the separate spheres, and which was so propagated. These forces drew these suns from their positions far outward toward the extreme bounds of the sphere of attractive force of the universe; and had no repulsive force of the opposing universes and the suns of each approaching the verge of their spheres, been developed to act upon them, they must have lost their positions within this sphere; disorder universal must have resulted.

Attractive and repulsive forces act in all directions upon masses according to their comparative massiveness; act also with reference to distance according to the received law of attractive force. All developing matter in these opposing universes and these opposing suns, acted as a repulsive force to these suns, developing spheres of repulsive force coextensive with those of attractive force; and spheres of repulsive influence coextensive with those of attractive influence. Attractive force overcame repulsive, for a period; during this time they approached other centers, receded from their own; developing repulsive force at length overcame attractive; the outward motion of these suns ceased. Pausing awhile, at length they commenced their return journey toward their

center. Still developing, this force repelled them to the extremity of the spheres of attractive influence of the opposing universes, which was where their own central impulses could impel them onward in their orbits.

These orbits were arranged with regard to each other by repulsive action of the revolving bodies upon each other, and the impulse impelled these suns in an easterly direction; while, by the influence of the highest grade or current of spherical matter of the universal sphere, their orbits all gradually determined toward the equatorial current, this being the highest current of this matter, or to the same point in an easterly direction. This caused them to approach each other in their onward course, to near, and disturb each other. Their spheres of attractive influence commingling, these volatile bodies became subject to each other's attractive force as they had been to that of suns of other universes. Repulsive force of each individual sun acted upon opposing, approaching suns as a protecting force; a force which should act as the preserver of these individual forms and of the parent form, as this same force acted when these forms were in proximity with contiguous universes. They revolved in orbits determined by these opposing forces—orbits as excentric as these forces, so developed, could determine them to be. Geometric figures fail to delineate the form of these orbits; so volatile was the matter of these bodies, that it was subject to the slightest force—dependent upon the caprices of nature, so to speak.

These capricious influences determined the direction of these orbits at different periods to determine toward the center. This induced more rapid motion of the suns, as it subjected them to the stronger attractive and repulsive forces of more highly qualified matter. Inward motion of these from their true positions, by subjecting them to stronger attractive and repulsive forces, was more rapid,—was accelerated motion, from the increasing strength of the impelling forces. The impulse was stronger as the opposing bodies neared each other,

by the same law that the attractive forces of the affinitized bodies were stronger as they neared each other. The central sun—the parent, exerted its strong attractive influence, upon these bodies, its offspring, to draw them to itself. They approached the center in directions determined by each other's positions, together with the power of the outward impulse.

Position of contiguous disturbing suns was the first cause which incited motion of each individual of these six suns interiorly from the plane of their orbits—the plane developing the onward moving impulse; they would have remained upon this plane, other circumstances being favorable, had they not, by some force, been attracted within the interior—the denser strata of the sphere of attractive force of the parent body. They were situated, when on the plane of their orbits, in the only positions in the universe where they could remain undisturbed by outside influences, so to speak. Outside the plane of their orbits, the sphere of attractive force was too feeble to retain them unaided under the influence of the central body; while interior to this plane the sphere of attractive force was too dense to allow them to retain, unaided, positions as independent bodies in the universe. Being attracted to positions interior to this plane by each other, they were subjected to the attractive force of the evolvable matter of strata from which, comparatively, little matter had been evolved—extracted. This force was sufficient to overcome the impulse perpetually acting upon these bodies from the center to the plane of their orbits, as has been described, according to the position of the stratum within which they were situated. At the period of their return to the plane of their orbits from the outer boundary of the universe, millions of centers had been impregnated within the central body, which were attracting to themselves evolved matter from the same stratum which had evolved them—within which the plane of their orbits was situated. As yet, no centers were impregnated attracting the matter of the third stratum—no forms were instituted from matter of that stratum; yet that matter was,

at that period, evolving matter; and sufficiently developed to constitute it an effective attractive force to matter of these suns. Interiorly from this stratum, all strata were developing their matter to that degree that it constituted a powerful attractive force to matter of these suns; and a force more powerful as matter exercising it was nearer the center.

The impulse—parental repulsive force, as before stated, was a perpetual impulse, a force which should exist while the forms existed. This proposition, apparently inconsistent when first considered, assumes consistency when it is remembered that the repulsive force developed by matter of the central body, aided that developed by matter of the stratum within which was situated the plane of the orbits of these suns; and when it is also stated that this individual parental repulsive force is a constantly progressive force, a force which develops into a sphere of repulsive force as extensive as the sphere of attractive force of the universe, (repulsive to other universes,) as extensive as the sphere within the plane of the orbit of the outer formation, (repulsive to this formation,) as extensive as the spheres within the plane of the orbits of all the successive formations evolved by the body, (repulsive to these respectively.)

A repulsive sphere, as of a central body, develops as the spheres of its successive formations develop. Every central body, as every form, develops an individual sphere of repulsive force, so termed; a sphere to whose extremity outside matter may be attracted, but which it can never enter; a sphere which condenses as the body itself condenses, being of a quality of matter to be acted upon by condensing forces; which sphere of repulsive force is bounded by one, as above described, coextensive with the sphere of the body—repulsive to other spheres; and spheres of repulsive force repulsive to its several formations. The sphere of repulsive influence of a body corresponds with its sphere of attractive influence, as that of repulsive force corresponds with that of attractive, and upon the same principle,—and is coexten-

sive with it. Bodies enter each other's spheres of repulsive influence as they enter each other's spheres of attractive influence; in the sense that this sphere is developed by all matter of the sphere of attractive influence by the commingling of diverse matter with it; as has been already intimated, and the commingling of these spheres of repulsive influence has the effect to aid in repelling the condensed bodies of these spheres, as the commingling of the spheres of attractive influence has the effect to attract the condensed bodies of these spheres. Spheres of repulsive force of bodies come in contact, as do spheres of attractive force; repulsive force being eliminated by contact of atoms of such grade, and diverse atoms.

The central sun, at the period of the evolution of these forms, extended its individual sphere of repulsive force to that stratum wherein the fifth formation is now situated; which is far outside the limit which will bound it as a perfected sphere; therefore attractive forces could not determine the perihelion of the orbits of those suns to be interior to that section of the universal sphere; although it did determine it to be upon the very confines of the individual sphere of repulsive force of the central sun. Individuality, so to speak, of the central body, as of these suns, had been developing during the ages while these suns had been performing a single revolution; it had arrived at that stage, at this period, that matter of these individual spheres could not commingle.

As these bodies approached the center, it was with an accelerated motion, being operated upon by more, and still more highly qualified forces. The impulse, as of matter from the stratum evolving these forms, was a perpetual impulse; and a developing impulse; as forms were being instituted within the central body from this matter, to which matter was perpetually flowing from this stratum. However, attractive forces, as they neared the center, were sufficiently powerful to overcome this impulse; and had not individual parental repulsive force been qualified to a degree to overbalance these attractive forces, disorganization of these forms must have resulted. They

were still of rarest cometary matter ; matter which was subject to be diverted from the central attraction by outside forces, and some of which must have been diverted from these organizations had not nature so arranged that forces throughout the universe were equalized. The parent body was still of rare cometary matter, and its forces, as attractive and repulsive, equalized so as to meet the emergency ; while the other forces acting upon these forms in aid of their development were precisely such as were demanded by the emergency. Nature had provided for the perpetuation of the race which she had instituted ; her children were her special care since first conceived. The wisdom that planned the institution, and the progressive development of these forms to the present stage, had provided that no emergency, at this stage, could disorganize them.

Reaching their perihelions, these bodies ceased their inward tendency, yet revolved with great comparative rapidity near the verge of the repulsive sphere of the central sun for a season ; or until the destined force should impel them outward again—cause them to again approach their aphelion. This destined force was repulsive force of atoms of the spheres of repulsive force of the central body and of these bodies, as outer atoms of these spheres came in contact, and as their spheres of repulsive influence commingled ; which force was perpetually being strengthened by this atomic contact ; also the force exerted upon each other to attract or to repel, according to the position which individual suns occupied with regard to each other, and to the central body.

A sun on its inward journey comes in contact with the sphere of repulsive influence of the central body—repulsive to it by commingling its own like sphere with that. The commingling matter being of rare, low quality, chemical action of this matter is not speedily developed ; therefore the motion of the condensed body is not arrested by the commingling of these spheres—the repulsion developed by this commingling. The spheres of repulsive force of the two bodies meet ;

instantly repulsion to each other is developed by the separate spheres, they being of comparatively high quality of matter. The inward motion of the condensed body is arrested. Meantime chemical action has resulted from the commingling of the two spheres of repulsive influence ; this action at length produces sufficient repulsion between the two bodies to greatly aid any other force which may tend to draw this body away from the central, although it is not sufficient of itself to accomplish this end. Another sun is in the same situation relative to the central body ; by means of attractive influence which it is able to exert in its position, aided by the repulsive influence thus developed, it diverts this body from its position near the central—starts it upon its outward career. In the meantime the impulse has been buffeting the attractive forces which have bound this body so firmly to the vicinity of the central body ; together these forces have caused an onward motion of the sun—a comparatively rapid onward motion ; thus diverted, the direction of its orbit inclines outward. Still buffeting its opposing forces, the impulse has found an aid in the attractive influence of the neighboring sun, which with it, is leaving the immediate neighborhood of the central body ; with this aid it is sufficient to overcome the attractive forces operative upon the body, which forces are diminishing forces as the body moves outward in obedience to the forces described.

Position of the six suns determined the regulation of the orbital motion of each. It is evident how position determined this, as it is evident to the instructed reader how orbital motion of bodies of the solar system is regulated by position. As in the solar system, bodies attract and repel each other, never interfere with each other's motions, or those of the central body of the system, so it was in the universal sphere. These six suns, almost alone in the vast universe, were sufficient to answer the purpose of regulating each other's motions sufficiently to preserve their organizations from disruption, until other suns should be evolved to aid them, by the same

laws that the motions of bodies of minute system are regulated. They attracted and repelled each other in precisely appropriate season; they aided the central sun, or combined against it, in precisely appropriate season; never could a contingency occur in the course of their revolutions determining disorganization of these bodies, or confusion in their motions, as law determined order, perfect arrangement of these by determining their simultaneous evolution, and thus their simultaneous approach to their perihelions.

The law by which the orbital motion of these suns was regulated, is the law that regulates the orbital motion of all suns. Cometary motion is the same of all suns, determined by the same law. A comet approaches the confines of the solar system, being a denizen of a contiguous system, by the same law that determined suns of this universe to approach the confines of the contiguous universes; and lingers upon the confines of the system, as did these suns upon the confines of neighboring universes, by virtue of the law of attractive force of spheres of individual suns of separate systems; are repelled from the confines of the system, as these suns were repelled from the confines of contiguous universes—by the developed repulsive influence of these spheres; and approaches its own perihelion by virtue of the forces which operated to cause these suns to approach their's.

Orbital motion is an eccentric motion until it becomes perfected. Seeking their perihelion, suns move with accelerated velocity; seeking their aphelion, they move with retarded velocity; this is determined by the action of the forces brought to bear upon them as they seek these positions. And high grade of forces, as those exercised by central matter of a universe, or a minor system, acts to produce rapidity of motion as compared to that produced by a low grade of forces—those exercised by outer matter of universes, or minor systems. Bodies in their aphelion move with a low degree of motion as compared with that with which they move while in their perihelion.

The sphere of repulsive force of a central body develops, as repulsive to each distinct formation it evolves, as was remarked, as its successive formations are evolved. This signifies, that the second formation being evolved, its forms are a repulsive stratum, so to speak, to the first; which stratum is the boundary of the repulsive sphere of the central body—repulsive to the first formation; the third formation being evolved in like manner from a repulsive stratum, which stratum is the boundary of the repulsive sphere of the central body—repulsive to the second formation; and thus with the other successive formations interiorly. A stratum of suns is repulsive to another stratum of suns. Thus the boundary of the individual spheres of repulsive force of the central body, ceases to be the limit of that sphere to a formation the moment an interior formation to it is evolved.

Formations frequently pierce the stratum, so to speak, within which an interior formation is situated, to reach their perihelion; but being subject to the influences of the formation occupying that stratum, in this sense, the sphere of repulsive force of the central body to that formation, is said to extend to the boundaries of the stratum.

Reaching the plane of their orbits, again outside forces acted to divert these suns from that plane; again they sought positions obedient to these forces, upon the confines of the universal sphere. Again were they repelled back to the plane of their orbits, and again attracted to their perihelion; untold ages elapsing while they were thus performing two revolutions in their mighty orbits around that amazing center. At each successive revolution of these suns the power of opposing forces was less upon them; as atomic action had, during the ages which had elapsed while one revolution was being performed, forwarded condensation, qualified their forces to resist the disturbing influences of other bodies. At each successive revolution, the aphelion was more distant from the outer bounds of the universe, the perihelion more distant from the center.

With the formation of these six suns nature did not cease

her operations. They were the initiatory forms of the first formation of the universe; the balancing organs of that formation. While they were in process of formation, procreative force impregnated many other centers within the same stratum of the central sun, but at different periods. Formation of these other suns was accomplished by the same laws operative in the formation of the first. Repulsive forces, originated by the same laws, repulsed these from the central sun to the same stratum of the universe occupied by these. Millions of suns were evolved from this same stratum of the central sun to this stratum of the universe. Thus was developed the first formation of the universe.

The distance of this formation from the central sun was so vast, matter of the forms of it of such rare consistency at the period of its first institution, that viewed from the surface of the central sun, it would have been visible only as a sphere of pale light;—a concave sphere encompassing the central body. For ages this would have been the appearance of that formation thus viewed; from the period of the evolution of the first six, until the whole formation had been evolved, and condensation had perfected individual suns to that degree that they presented form. During all the time from the commencement of the outward motion of the first centers until the entire matter of the last sun of the formation had left it, there was a constant emanation of matter from the central sun from points varying in number, from six to hundreds;—streams of rarest light, which, to the observer, would convey no idea of form, of order, of law; yet these streams—this rare matter composing them, was as obedient to the law of attractive and repulsive forces in its volatile nature, as is the matter of a condensed sun; which, with regulated motion, performs its periodic revolutions around a center. No matter was lost; each sun was powerful to control the matter of its form; knew its position, performed its orbital revolutions around the center in prescribed periods of time; disturbed, developed, by the described forces. Condensation proceeding

in all the suns of this formation, gradually, as ages proceeded, they presented the appearance of suns ; rather, of comets in various stages of condensation ; from the long attenuated form of the rarest comet, to that of the elongated spheroidal form of the more condensed one.

Suns of this formation being of outer, rarest matter of any entering into formations, save that of the outer stratum, have been longer in condensing than the more recently evolved suns of denser matter. No sun of this formation has yet progressed out of the cometary condition ; although periods of ages by untold myriads have elapsed since it was completed.

Condensation of rare atomic matter, proceeds with far less rapidity than that of dense ; this accounts for the present condition of suns of the first formation, as compared with those of later evolution ; these being of more dense matter than those of that formation.

It was stated in connection with the delineation of the law of formation of suns, that they, in connection with all forms, simultaneously developed positive, and negative organs,—forms. It was also stated that the central sun evolved simultaneously balancing organs in the evolution of the first six. This signifies that separate qualities of matter of the stratum evolving this, was developed into separate forms by this lower exhibition of the law of formation. The same law holds in all cases of evolution of forms ; of development of centers by procreative force ; be the organs separate forms, or the combination of the two organs in one form. The progressive development of matter exhibiting law more perfectly, the truth becomes apparent, that the combination of two simple organs into one which shall answer a higher purpose than the two, is the higher exhibition of the established law. Man was cited as an example of the perfect exhibition of this law.

To illustrate the principle under consideration, let the reader take for example of the combination of balancing organs, the heart, or brain, of man ; each of these is one inseparable

organ ; each combines as many separate organs,—balancing forms of the formation, as there are corresponding organs whose life currents center in this organ. These organs are representative of central organs of all lower formations ; yet they are perfect representations of the union of organs in one form. The liver is a more perfect illustration of the union of balancing organs into one form, a side form, so termed. The two lobes are the two organs ; they are inseparable—constitute one form ; are connected with the center by one set of currents in the same manner that a sun of the same combination of organs is connected with its center. The balance of the body with the center is perfectly maintained by the position of the organs within it, as corresponding to the position of outer, similar organs. Thus with a sun ; the balance of the system is maintained with reference to another, similar sun ; while the balance is further maintained by the union of the two organs in one form, which is, in definite terms, the union of two qualities of matter in one form ; whereas in single organs, so termed, separate qualities are incorporated into one organ.

The central sun, the heart of the formation, so to speak, was connected with each set of organs of the formation by currents ; as man's heart is connected with each set of organs of his body. These currents were positive to positive organs, negative to negative ones ; positive and negative to those organs combining two in one. Magnetic and electric poles, so termed, each sun possessed ; these were the opposing points in the body where the opposing currents entered. All organs possessing these, whether positive or negative, all were receptacles of positive, and negative fluid. Positive forms affinitizing more with the positive current, drew an excess of that ; negative ones affinitizing more with the negative, drew an excess of that ; while positive and negative organs, affinitizing equally with both, drew of each in equal proportion. This constitutes the difference of suns, as of corresponding organs in separate forms, of corresponding organs in the same form.

The central sun, after the simultaneous impregnation of the six centers, as described, completed the first formation by the impregnation of a single atom, the evolution of a single form at once, of the nature described.

The delineation of principles, the description of forms, of formations, gives the reader no conception of a formation. The inadequacy of human language to express dimensions, extent, as relates to the universal sphere, the central sun, the suns it evolved, spheres of these, and of their formations, renders the task of instructing the mind, as to these, difficult in the extreme. Mind in its first condition can comprehend small forms, infinitesimal spaces, so to speak; can measure forms and spaces by miles; yet it can comprehend nothing of infinitude. Beyond the intrinsically minute forms of the solar system, it measures nothing. It measures vastness, spaces, by comparisons; these best convey to mind, in its low condition, the reality of vastness, of extent. Mind has measured the diameter of orbits of outer planets of the solar system—of the outer discovered planets. These measure by thousands of millions of miles. Taking the truth into consideration that there are yet undiscovered outer planets of this system; also that the sun—the central organ, is a formation from the outer stratum of the system, in which stratum no planet revolves, and which exceeds in depth, by far, any other stratum of the system, the mind can conceive something of the vastness of this minute system. This sphere is the evolution of a sun of the second order; or of a sun evolved by a sun evolved directly by the central sun. It is a sun of the third order, the offspring of a parent whose evolutions—offspring, number by thousands; each of which is a sphere comparing with its sphere as the spheres of the planets of the solar system compare with each other, in the order of their formations; some vastly larger than the sun's sphere, some much smaller; but each formation consisting of many suns of comparatively the same size. The sphere containing all these, is sister to hundreds of thousands of spheres comparing

with each other as those of the interior formation described. These are the spheres—suns, evolved by one sun of a formation of the central sun; of these there are millions in a formation, of comparatively equal size, excepting the first six forms, which are immensely larger than the others of the formation. Of the formations, eleven is the number to be evolved by the central sun, each composed of millions of suns. The outer stratum of the universe, is of much more vast extent than any stratum evolving formations within it; yet, it contains no forms. Interior to the eleventh formation, is space sufficient for the development of these outside the individual sphere of repulsive force of the central sun. A measure of the universe! Mind pauses ere it leaves the solar system, whose extent it has failed to measure! What follows this is but words—language expressive of truth, yet incomprehensible to mind in its low condition. Let mind study this language, these truths; for the day shall come when it shall measure its abode, the universe, more readily than it now measures its abode, Earth.

Does mind fail to comprehend dimension—extent of space; it also fails to comprehend time—extent of periods. It measures time by moments, by years; measures eternity by the comparison of infinitesimal periods with infinitesimal periods; prescribes bounds to eternity according to its capacity to measure it. Again let the reader compare; compare comprehended periods with incomprehensible ones; as he has compared comprehended spaces with incomprehensible ones.

Man measures the historic period by thousands of years; the fabulous period he confounds with this. Let him measure the fabulous period by thousands of years; the unrecorded period of man's primitive history by thousands of years. Geologic periods he measures not; let him measure the entire period from Earth's development to the planetary condition to the period of the appearance of man, by hundreds of thousands of years; from the period of its development to the lava condition to the planetary, by thousands of millions of

years ; from the period of its development to the mercurial condition to the lava, let him measure by quadrupling the last ; from the period of its development to the dense vapory condition to the mercurial, by multiplying the latter period by ten ; and from the period of its evolution from the sun to the dense vapory condition, by multiplying the latter period by seventy. The period intervening between sun's evolution and that of Earth, let him measure by taking the entire period of Earth's existence from the period of its evolution to the institution of the planetary condition. Here let him pause ; vain effort ! Incomprehensible periods ! Infinite eternity ! One single day of God's infinite life !

Formative action did not cease with the evolution of the first formation of the universe. While were being evolved the last suns of that formation, procreative action impregnated other atoms of the same stratum within the central sun which had evolved the central atoms of the outer formation. These developed centers attracted atoms from the stratum interior to that evolving the matter of the first formation,—that wherein the plane of the orbits of the suns of this formation was situated. This was the only evolved matter in the universe affinized to these centers ; while it was the only matter of the universe prepared to be retained by centers ; therefore this matter was attracted to these centers.

Six centers, as in the case of the first formation, were simultaneously impregnated ; six suns simultaneously formed, and evolved from the central sun ; being the balancing organs or forms, inaugurating the second formation of the universe. Following the evolution of these, as in the case of the first formation, was the evolution of single forms, until millions were evolved, completing this formation. These, all, were more vast than the corresponding forms of the first. Equal laws operating in the formation, the evolution, the progressive development, of all formations, equal laws operated in the development of the orbital motion, in determining the positions, relative to each other, of the suns of this form-

ation ; the position of this formation relative to the first, as operated in regulating the motions and positions of suns of the first formation, and the position of the formation itself relative to strata, and contiguous disturbing forces.

The position of the second formation, like that of the first, was in the stratum evolving the matter of its forms, as has been already stated. Parental repulsive force, repelling these from the central sun, their position was where this repulsive action ceased ; or, within the stratum developing it ; or all, save that which repelled the last or interior stratum of suns of the formation. These were repelled by repulsive force developed by evolving matter of the next interior stratum.

Of the law of formation and evolution of suns, and of stratification of spheres, the reader will gain more perfect understanding by what follows. The stratum evolving the matter of a formation, is the stratum which will contain the formation. The repulsive action developed by matter of any stratum, will repel suns to that stratum, save its interior substratum, and the interior sub-stratum of suns of the next outer stratum, as above stated. The law which determined that outer matter should first be evolved, determined the evolution of outer strata until all the strata of the universe had, successively, evolved formations. All the strata of the universe, signifies the great subdivisions of it, so termed. Every stratum is subdivided, according to the qualities of matter of which it is composed ; these qualities, however, affinitizing more nearly in the stratum which they compose than with corresponding qualities of the contiguous strata. The six forms of each great formation, first and simultaneously evolved, are of one quality of matter of a stratum—the central quality ; they occupy central positions in the stratum, as balancing forms of the formation.

The qualities of matter of a stratum are three ; which qualities are divided into grades ; each quality being of four grades. This subdivision of a stratum, constitutes twelve minor strata in each great stratum. These three qualities are the three

qualities of electric condition, so termed, into which matter is divided,—the positive and negative, positive, negative. All grades of matter from the great grade constituting all the evolved matter of the universe, to the most minute subdivision of this grade; all bodies, from the central sun to the minute atom, are constituted of these three qualities of matter. Nature's method is division and subdivision; again division and subdivision; yet perfect order prevails as to the method of thus dividing and subdividing matter of forms and of strata. The universal sphere—the great form, is of three qualities of matter; the central, or highest quality of matter being positive and negative—the highest quality; the outer, or most undeveloped matter being negative—the lowest quality; the intermediate, being positive—the intermediate quality. This arrangement of the three qualities of matter of the universe is one arrangement; there being other arrangements of these qualities to suit the conditions of matter relative to position, and electric quality; the former arrangement suiting the condition of this matter relative to density or inherent quality. Interior matter, being most dense, is most developed; and therefore, in a sense, is positive and negative matter; while outer matter being most rare, is, in the same sense, most undeveloped—in the same sense, negative matter; while the intermediate, is, in the same sense, positive matter. Again: Outer matter possessing the advantage of position of all other matter of the universe, is soonest evolved; in this sense, it is positive and negative matter; in the same relative sense is intermediate matter positive, and interior matter negative. Again: Central matter—termed central of a sphere, as comparing the divisions of a sphere with those of a stratum—which signifies, that centrally situated relative to the interior and circumference of the sphere, is positive and negative matter; of highest quality electrically, or in the sense that its office is to equalize the circulation of the electric fluids throughout the sphere.

While strata of spheres, from circumstances of position and

inherent quality of matter, are thus relatively arranged as to their qualities of matter, there is but one arrangement of these qualities in strata or subdivisions of strata, which is the third arrangement above mentioned.

Positive, and negative, used as relative terms, are thus used for want of terms in the language to express nature's methods, principles of action; they are absolute terms applied to nature's inherent life principles—the electric forces. Positive is positive, ever; signifying a quality of the electric fluid; while negative is negative, ever; signifying a quality of the electric fluid, while the perfect union of these two qualities of this fluid, is the insurance of development—progress. Relatively used, these terms signify comparative degrees of qualification of forces, or matter, and relative position; as of bodies or strata.

God is Positive and Negative—Male and Female. As two principles, the Electric Fluid constituting the Divine Essence, acts;—as the effect of the operation of two principles, is all action exhibited through matter. Male and female principles operative in the elimination of all form, act as equal forces in the act of impregnating central atoms or germs—act as attractive and repulsive forces; therefore it is an established truth that the electric fluid is two principles from the nature of the method of action of its two component parts; being one principle, in the sense that no action results but from co-operation of the two component parts.

This method of action is the method of Being of God. God is All Matter, All Spirit—All Low, All High Matter. His method of Being is, that grades act upon each other;—that physical substance acts with spiritual substance to perpetuate action—being, in all nature. It is the highest action possible generated by the two grades, termed high and low, or spiritual and physical, that constitutes God's Mind—the Intelligent Mind of the universe. The action of physical with spiritual, is the action of the dual force;—is the interchange of the positive and the negative principles which con-

stitute the component elements of the dual force, which interchange institutes all action—all formation.

Corresponding to all grades of physical substance, are grades of spiritual; and it is the equal action of the force of corresponding grades of these upon each other that is impregnating force. The spiritual acts through the physical; this signifies, that the spiritual essences opposed to the physical are brought in contact with the physical through physical forms—forms spiritualized to the greatest degree possible of the grade to which they belong. Thus: The female form represents the spiritual essence co-operative with the physical, which is exhibited through the male form in man and all the orders of animal creation; while in the lower orders, this essence is exhibited through matter upon the same principle,—through forms spiritualized to the greatest degree possible, of the grade to which they belong.

Confusion as to the relative application of the terms positive, and negative, may occur, unless the reader is particularly instructed in the use of these terms, and their relative application to spiritual and physical forces, on spiritual and physical planes, so termed. The electric qualities of matter derived from position in stratified spheres or higher physical forms, are strictly relative qualities, in the sense that positive, and negative, are applied as appellations of the quality of physical force exerted by matter in these different positions. The relative signification of these terms upon the physical plane, always determines the positive to be the stronger physical force, the negative, the weaker. Physical acts upon physical for the institution of all form, in the sense, that the spiritual acts through the physical, as above explained; therefore all action in physical nature is positive, and negative, relative action, or stronger with weaker. It is the apparent inequality of these two forces that originates all action, all formation in nature; as the spiritual force can only act through forms of matter qualified as spiritualized forms. These forms are necessarily a lower grade of physical form, in the sense of being weaker—

less capable of exercising physical force; therefore, of a necessity, are the physical positive and negative unequalized forms or forces. This will appear as illustrations of the action of the two forces in physical nature are given.

Positive, and negative, from the intrinsic signification of the terms, are applied to qualities of action of matter of strata of spheres in their relative positions and offices in the sphere; also the qualities of action or force exercised by bodies—all physical forms, upon each other. The stronger body or force is the positive, the weaker, the negative, according to the intrinsic signification of the terms. As is the intrinsic signification of these terms upon the physical plane, so it is upon the spiritual; the stronger is the positive, the weaker, the negative force. As all action in matter is, in a sense, spiritual action, or as gross matter is only moved by the power of spiritual or internal life forces, the spiritual is, in reality, the positive force. The absolute signification of these terms is, therefore, their signification upon the spiritual plane; and in that sense they will be used in the following exposition.

God is Positive and Negative. From eternity, God acted as Positive and Negative;—from eternity, all action in matter was induced by the action of Positive and Negative Electric Force.

Atomic motion, from eternity, was induced by the equal action of the positive and negative electric principle, which permeated matter as the Deific Soul Principle; which motion instituted all action in matter. Atomic motion, as here denoted, signifies all motion, all action of matter.

The electric principle of nature, or electric force, signifies electricity—all the grades of this substance from the high Positive and Negative constituting God's Essence, to the lowest form constituting unevolved primeval matter. The grades of electric force are as infinite in number as the grades of matter. This signifies that every grade of matter eliminates a grade of fluid, termed electric, of higher relative nature than the, so called, matter itself; which is itself a grade of

the fluid. The latter proposition seems incomprehensible to mind ; yet, upon analysis of nature's method of evolving matter, it is proved that it is only accumulation of atoms of inappreciable fluid that constitutes physical substance ; and also upon analysation of the method of condensing cometary matter, the method of evolution of higher matter from lower, it is proved that all grades of matter result from accumulation of atoms of electric fluid—a fluid or substance eliminated by atomic action of lower grades.

All action is atomic ; all motion results from atomic action. God instituted motion at the opening of the present compound cycle of action, it has been stated, by the medium of Deific Electric Force ; which medium acted upon the life forces of nature to institute this action. Different appellations are given to the two great grades of electric force, from the nature of the action of these grades, and to keep before the mind the correspondence of the action of the two grades with the known processes of nature, those which man observes in his daily life—in his own method of existence.

Decomposition of all forms, and re-absorption of the primal elements having resulted at the close of a compound cycle of rest, action awakes in matter, so to speak ; the eternal night of death is ended ; motion, which was latent in matter, is resumed. Whence this action—this renewal of motion ? Apparently a vast gulf—an immeasurable, fathomless ocean, separated the universe of undeveloped matter from that of developed ;—separated God—the indwelling spirit, from the outer of nature. By what principle should this fathomless gulf be bridged ; what was the link which bound God to His Physical Organization ?

Motion is eternal during that incomprehensible, eternal period of eternal periods of rest ; motion had not ceased. Atomic action of the lowest grade of Deific Electric Force with physical electric, as the lower force is denominated, had continued ; and it was from the effect of this motion that

the forces of physical nature were equilibrated to the degree that formative action could commence in matter.

From eternity to eternity, God was, is, and shall be. Eternally His mode of existence is the same; and he who fathoms God's Being will determine when, and how, Deific Electric Force first originated; and when, and how, physical electric force first originated; the one is coexistent with the other, and both coexistent with God. God's method of existence, as developed mind understands by studying the processes of nature, is by interchange of positive and negative principles, or spiritual and physical. He exists as the Intelligent Principle of the universe—an Organized Mind, by virtue of His connection with the outer of nature—the physical; as man exists as an organized intelligence, or mind, by virtue of his connection with a physical organization, or an outer. God is a Trinity; the principles constituting this Trinity being the Deific Mind, or the Organized Intelligence of the universe; the Deific Soul Principle, or the Life Forces of Nature; otherwise termed physical electric force; and the Deific Body, or gross matter, through which the higher forces act. In exact correspondence with the Divine Trinity is the human; man is a trinity; the principles constituting which are his intelligent principle, or mind; termed his spirit; his soul principle, or the spiritual essences pervading his physical form which constitutes that a living form; and his body, or physical organization. As man is not man is either principle of this trinity wanting, so God is not God is either principle of the Divine Trinity wanting; and as man can not exist without perpetual interchange of positive and negative—spiritual and physical, through the medium of his organization—the three principles constituting him a trinity; so God can not exist without this interchange effected through the medium of His Organization—the three principles constituting Him a Trinity.

God is self-existent, while man is dependent upon nature outside his own organization for existence. This fact does

not destroy the analogy existing between the method of existence of God and inferior man ; but it rather strengthens this analogy. Man draws from physical nature elements to sustain his physical form, to co-operate with the positive element for the manufacture of physical substance constituting that form. He draws from his physical form elements whereby to sustain his soul principle—elements to combine with a higher positive for the manufacture of the spiritual substance composing his soul principle. He draws from his soul principle elements to sustain his spiritual principle or mind—elements to combine with a still higher positive for the manufacture of his spiritual principle.

Man's germinal spiritual essence, so termed, is the highest positive below that entering into the constitution of the Deific Essence ; it is atoms of positive spirit emanating from the Divine Essence as a grade of lower substance repelled from a higher, which grade is graded ; there being an infinite number of grades of this, as there are an infinite number of grades of substance forming the spheres of force of bodies or atoms. This germinal essence combining with the highest negative eliminated by man's physical organization through the medium of his soul principle, constitutes the organized mind. The negative combining with this positive is essentially physical, else combination could not ensue—organization could not exist ; yet the combination of this high negative with this high positive, constitutes an essentially positive substance ; and a high positive. It is the union of chemical elements, which elements lose their individuality in combining ; as the negative is changed in its nature, so is the positive, and the compound resulting from their combination, affinizes with an intermediate plane between that affinizing with the positive and that affinizing with the negative. This negative is an electric fluid eliminated from animal magnetism, and is the highest negative in nature, save that which enters into the organization of the Deific Mind ; as the germinal spiritual

essence is the highest positive, save that which enters into the constitution of the Deific Mind.

The positive combining with the negative for the formation of the soul principle, is a high positive; yet infinitely lower than that grade entering into the composition of mind. It is an emanation from a like grade of matter, or from soul substance in a high spiritual sphere; as the higher positive entering into the constitution of mind is an emanation from a like grade of substance—from mind substance. The negative combining with this positive is also essentially physical, and lower physical than that entering into the constitution of mind; this negative is animal magnetism. The result of the combination of this grade of positive and negative, is a compound of an intermediate grade—is essentially a positive substance. The positive entering into the constitution of man's physical organization is an element eliminated from a like grade of substance, or the outer of man in the first spiritual sphere; the negative is gross substance; as food, atmospheric elements, &c. The compound is of an intermediate grade between the positive and negative, and is physical substance.

A positive and negative combining by the perfect action of law, are said to be of the same grade, as terms are used; although the negative is separated from the positive by many actual grades of substance. Positive and negative of different grades, will, however, combine for the institution of form by the undeveloped action of law, as will appear; such combination always resulting in imperfect forms.

Man dies; decomposition of his physical results from the cessation of the manufacture of animal magnetism—the negative entering into the constitution of the soul principle; which negative is the link binding his physical to his soul structure, and through the agency of which, intelligence and motion is exhibited. The supply of animal magnetism ceasing, severance is at once effected of the physical from the soul structure. This is death.

Death is not severance of the soul principle from the spirit ; it is not disorganization of the soul structure ; although the supply of animal magnetism has ceased by the severance of the physical structure from the soul. The moment this severance takes place, the soul structure, in its effort to draw its wonted supply of this element, draws of the positive element which enters into the constitution of physical substance of the grade forming man's food, and upon this, it henceforth exists ; as the body had existed upon food—the physical elements. Arrived upon a spiritual plane, the manufacture of the magnetic fluid, which is the negative—the link connecting the soul principle with the spirit, continues to be supplied by corresponding action with that which supplied the lower negative, or the animal magnetism, upon the physical plane. The soul is now constituted the outer of this spiritual being, and the spirit, the soul ; while a spiritual germ of higher grade, constituting the interior intelligent principle of this spiritual man, is organized by the action of the same law by which man's spirit is first organized. It is from one of the infinite number of grades forming the grade of positive which enters into the constitution of man's mind, that is supplied the germinal spiritual essence entering into the constitution of man's spirit as he passes through the infinite grades of being. This branch of the subject will not be particularly treated in this volume ; these few explanations are deemed necessary to an understanding of the subject particularly under consideration.

God formed man "in His own image," emphatically ; in that he exists by the same method by which God exists—is self-existent in the sense that the nature of his organization is such that it is indestructible ;—that reorganization of the interior spiritual succeeds the decomposition of the outer through all the grades or spheres through which man passes in his progressive journey through eternity. Interchange is the method of his existence ; interchange of positive with negative, spiritual with physical. God exists by interchange of positive and negative—spiritual and physical. The Or-

ganized Mind of the Universe—the Highest Positive, is constituted of positive of lower grade in combination with negative of lower grade, in perfect proportions.

The nature of a compound, as of high or low quality, depends upon the quality of the proportions entering into that compound; or, which signifies the same, the nature of the elements entering into its constitution. Elements are termed of low grade when their component parts are imperfectly combined from the lack of due proportions of some elements entering into the constitution of these; or from lack of elements, in any proportion, in their constitution. Perfect proportions of positive and negative, in this case, signifies perfect proportions of all of nature's elements—such proportions of these, as when combined, a perfect union is the result. Proportions of chemical agents unite only when they are proper proportions; proper proportions are not always perfect proportions, therefore, all forms are not perfect forms. A chemical compound, which every form properly is, decomposes when some attractive force of an element not contained therein, or of a proportion of an element not contained therein, is applied to it; thus: Atmospheric air is composed of certain proportions only, of the elements; combinations of different proportions of the same elements may attract proportions from this compound, causing decomposition of it. Again: A compound of lower grade not only lacking proportions of elements, but lacking elements, coming in contact with the attractive force of a higher element, decomposition results from the lack of the proportion, or an element in its constitution.

The eternal round of Deific Life results from the method of that Life—the nature of the Deific Organization, which signifies the structure of the universe. The universe is a perfect organization; therefore eternally existent.

God's nature being perfect,—in other words: He being a perfect compound, decomposition of His form, as of physical, soul principle, or spirit, can not result. Action, therefore, of

the forces of the Deific Organization upon each other is eternally inevitable.

A perfect form ;— what signifies this ? Self-existent, self-sustaining ;— what signifies this ? It signifies a form self-supplying ; that whereas, all inferior forms are dependent for supply upon all sufficient nature, the perfect form is itself the source of its supply. This enigma will offer its own solution as the subject of Deific Electric Action is elucidated. The study, by man, of his own organism, its method of electric action, shall give to him the knowledge of how God is self-existent ; how eternity succeeds eternity in eternal rounds.

Action was latent in matter ; which action was induced by attractive and repulsive influence of Deific Electric Force upon it, which Force permeated it, as the magnetic forces of man's physical form pervades that form. It was the link, as has been before stated, that bound the Deific Mind with the Deific soul principle, as the higher magnetic fluid of man's form is the link which binds his mind—his intelligent principle, to his soul principle. "God is all, and in all." Matter is every where ; every where action induces formation in matter ; every where is intelligence displayed in the method of this formation ;—in the evident plan which instituted it, and carries it forward to the attainment of the end in view. Man reasons analogically, unavoidably ; he observes, draws conclusions from observation. Does he discover an intricately constructed machine, a machine perfect in all pertaining to it, he hesitates not to believe that intelligence guided the hand that constructed it, having first planned it. His own intelligence prompts him to this belief. Does he behold nature's action, study her laws and methods of development—processes, from the first institution of forms to the present, and observe that method was plan, that motion was method, that action was construction ; that plan, method, and action, has induced development of grossest matter to spiritual man ; that the mutual interchange of spiritual and physical, physical and spiritual, from the beginning, has induced the spir-

itualization of all matter, all forms ; given physical form to spirit, so that, in a sense, all forms are in "the image of God," being spiritual and physical ; that man—the first developed form that embodies intelligence, is above all other developed forms, being so constituted that disorganization of his germinal spiritual is impossible, that he is, therefore, constituted the magnetic link connecting matter with God—the Electric Fluid, properly termed, which connects physical nature with the Divine Principle, corresponding with the two qualities of magnetic fluid generated in man's organization, termed animal magnetism of higher and lower grade, which connects his physical with his soul structure, this with his spirit ; and does he observe, that by the instituted processes of development, eternally must man result from these processes, he is led to the irresistible conclusion, that Omniscient wisdom planned what Omnipotent power could execute. He will know that God is self-existent, without beginning of days or end of life ; that He is God, blessed forevermore.

Attractive and repulsive forces of Deific Electric Force upon matter, as remarked, induced development. Atomic action was latent during a greater portion of the compound cycle of rest which preceded that of action, from eternity. Entire decomposition of developed elements having ensued from nature's action determining decomposition, all motion in matter was latent, henceforth ; or until this, so called, latent action had equilibrated the electric forces latent in matter ;—until the positive and negative were equal forces again in universal matter. The evolution of spirit,—intelligent mind, termed positive spirit, had necessitated the loss to the physical universe of an amount of positive force ; (as will appear in future connection,) this had insured disorganization, and it was nature's—God's prerogative to supply this loss to physical nature by this prescribed method of action.

Interchange of atomic elements of the spiritual and physical, during the eternities of the compound cycle which suc-

ceeded entire disorganization of elements, insured the restoration of the equilibrium which had thus been lost. Physical development was insured by the restoration of this equilibrium. To illustrate:—Correspondence is nature's method; nature's longest periods of rest correspond with her shortest periods; man's periods and condition of rest, correspond with nature's periods and condition of rest. A soil becomes exhausted by the production of successive crops; a condition of that soil is reached, by injudicious cultivation of it, when it will produce nothing of value. Eschewing the improved methods of renewing that soil, let nature's primitive method—that of rest, illustrate the subject. Years will elapse before that soil will be regenerated by the forces brought to bear upon it by unaided nature; it must first decompose its remnant of elements; its exhausted elements, forces, must be resupplied from surrounding nature, where there is an abundance for this supply; and although time is requisite to induce reorganization of perfect soil elements from these imperfect remnants of elements and the proportions which are supplied by unaided nature, yet time is sure to regenerate that soil; nature's developed elements will be attracted to it, however degenerate it may be. As in the case of the disorganized universe of matter, it will draw from the never failing fountain of supply the needed element or elements to induce perfect restoration to the average condition of soil in its locality; the period necessary for the accomplishment of this, being according to circumstances; as depth of degradation of the soil, the electric condition of elements during the period of its regeneration. By atomic action of the electric fluids of surrounding nature with the electric fluid of the soil, a new element or proportion is incorporated into the constitution of this soil, and it again acts as a qualified soil.

Again: Man sleeps; action has induced weariness, necessitated rest; exhaustion of the physical electric fluid by exercise of brain and muscle, in this case, necessitates rest of matter. Sleep is sister to death; exhausted nature, without

resorting to decomposition, obtains from nature the necessary amount of physical force to restore equilibrium by shutting off a portion of the supply, so to speak, of the fluid which connects the soul principle with the spirit. The partial stoppage of this supply induces cessation of thought, and consequently of action; or sufficient cessation of these to cause cessation of muscular action, and consequent cessation of further exhaustion of physical force. This is necessary before stimulation of physical force can result—before the needed element, or proportion of this force, lost from the form, can be restored to it. Atomic action of the physical and spiritual magnetic forces in the organization during the period of unconsciousness, restores the lost proportion to the physical; which proportion is organized from positive and negative, and is a physical or ponderable force.

A partial stoppage of this supply of the higher magnetic fluid is induced by the cessation of the action of the mind in the effort to induce sleep; attractive force ceasing to be exercised, mutually, by the spiritual and the soul brain. Unconsciousness is only partial in case of deepest sleep, as this supply does not, can not, entirely cease without decomposition of the soul brain; partial action continues between these two brains even during the process called death;—while complete severance is being effected between the physical and soul brain by decomposition of the physical.

The correspondence is perfect, in the fullest sense, between this cited case, and that under consideration. The spiritual element in man's nature during sleep acts upon the physical, precisely as the Deific Mind acts upon the Deific Body, through the medium of Deific Electric Force upon the gross electric fluid latent in matter; precisely the same result is effected by this action—the restoration of the equilibrium of the forces of the mind, soul, and physical.

Does the body weary, the mind wearies; is there a loss of equilibrium in the physical universe, there is also in the spiritual; is this loss supplied to the physical universe, it is

also to the spiritual ; and by the same process which supplies it to the physical. Interchange is the method ; man's physical draws physical positive force, from the spirit—the mind—which it needs ; (which force is positive on the physical plane) while his spirit draws of spiritual positive from the physical to supply its loss ; (which force is negative on the physical plane.)

The body soonest becomes exhausted ; thus the energy of a system will wear it out, as it is said ; the body decays while the soul lives on ; perfect equilibrium of its electric forces—its gross positive and negative, not being perfectly restored by rest after maturity—after man becomes an acting, thinking being. Old age comes prematurely to the thinking man whose physical is imperfectly constituted ; while the thoughtless, being physically well constituted, all other circumstances being favorable, will live to an unprecedented age ; and, as nature designed, the physically well constituted thinking man, lives his “three score years and ten.” Maturity marks the period in man intervening between youth and old age ; the only period in his physical existence when the positive and negative can properly be said to be in equilibrium. During the period of youth there is an excess of the positive (physical) manufactured and consumed, by the system ; during old age, an excess of the negative (physical) manufactured and consumed, by the system ; during the period of manhood, the perfect man, by preserving equilibrium of thought and physical action, preserves the equilibrium of these two inherent forces of his nature. Animal magnetism of the lower grade is this positive—the highest positive of the human organization ; the negative of the system corresponding to this is thought magnetism.

The justice of nature's arrangements is exhibited in her method of developing man. The manufacture of an excess of the positive element, precludes the possibility of thought or care, by the youthful mind ; which, if induced by any method, in that mind, would cause premature decay and death.

During the period of manhood, the necessities of the family, the social relations, demand that man be an acting, and a thinking being ; while he is constituted such by the natural action of his system,—the equal action of the two grand forces of nature. Nature destines man to die ; destines him for a higher state of existence ; and by her method she induces decay, final disorganization of the physical system to this end, by the destruction of the equilibrium of these forces.

Man's organization derives its supply from surrounding nature ; it being a part of the Great Perfect Organization. As a part, it is dependent upon other parts ; as one organ of man's body is dependent upon other organs. As a whole, man's organization corresponds to the Deific, in this ; that it is self-supplying in matter of the germinal essence of the mind, which alone constitutes man—the immortal being. It is self-supplying in this element ; thus :—The germ of man, signifies the perfect man, yet undeveloped, yet to unfold ; it signifies the essence of man—the elements, unproportioned. Nature's effort from the first institution of man's physical form is to duly proportion these elements. As it is God's method to act through an organism, He has made it man's method to act thus ; as it is God's method to act through an organism, there is no other method by which to act ; therefore, man acts through an organism, exhibits intelligence through an organism ; yet, through an organism he does not draw that which he inherently possesses—the elements which constitute him man ; as God does not draw that through an organism which He inherently possesses,—which constitutes Him God. By action induced by intelligence is he only constituted man, in the true sense ; an idiot, though possessing the physical form, is not man ; because he possesses not the inherent quality of man—intelligence. By action, induced by intelligence through an organism, is God constituted God, in the same sense. Man is not God, because the elements of his being are disproportioned ;—because he is a developed being.

Mind derives intelligence, it is said, from nature; this signifies, simply, that the induced action of the germinal mind by the effort of thought, proportions the qualities—the elements of that mind. Thus: Through the physical senses the brain perceives; this signifies, that magnetism from an object, as a physical object, or thought magnetism from the brain of another, enters through the avenues of the organism, and acts as matter upon the physical brain, and through this, upon the soul brain; and through this, upon the spiritual brain, here termed germinal spiritual. This excites action of that brain, which action generates thought, intelligence; the germinal spiritual brain being itself intelligence. It is by action of this mind—this intelligence, upon the sphere of mind of the universe, that it develops—becomes properly proportioned. Attractive force exerted by man's germinal spiritual, or mind, upon the positive sphere of the Divine Mind—that supplying germinal essence, as before described draws atoms of this essence from that sphere to proportion the mind; or to reorganize it, as it passes from one sphere of wisdom to another. This branch of the subject will not be fully treated in this connection, as its consideration properly belongs elsewhere.

In the true sense, mind can not disorganize; it adds to its proportions gradually, until it can be said to be reorganized, in the sense of being constituted of entirely different proportions of the same elements; as atmosphere gradually adds to its proportions—being a planetary atmosphere—until it is constituted of perfect proportions, so termed,—until it is so diverse from an undeveloped planetary atmosphere as to be termed a different organization.

- Mind draws nothing from the grosser man, save action; as God draws action from His Physical; therefore, it is self-existent;—not in the sense that God is self-existent; self-sustaining,—yet not in the sense that God is self-sustaining.

But whence the supply from God's essence of material for

the race of man through eternity ; and whence the supply of the physical from which form is eternally to be developed ? Interchange is perpetually the method of the Deific Organism, whereby it sustains itself—produces and reproduces.

Atomic motion, instituted by the action of Deific Force upon matter, after eternities, and cycles of eternities, consummated the purpose for which it was ordained—the restitution of equilibrium of positive and negative in matter. Simultaneously with the restoration of this equilibrium, occurred the stimulation of motion of matter. All centers, all matter pertaining to all centers, were stimulated by the restoration of the lost proportion of positive to physical nature. Attractive and repulsive forces were again equal, therefore, procreation could result from action in matter.

Procreation—stimulation of motion of an atom inducing formation, is the equal action of attractive, and repulsive forces upon the atom. Equal action of these two forces upon an atom, while it induces no change of position of the atom as a whole, induces change of position of its atoms ; positive atoms are attracted by the attractive or positive force, negative by the repulsive or negative force ; while each are repelled by the opposing force ; thus atomic motion of the atom is quickened, while no change of position of the atom as a whole, is possible, as is evident ;—equal forces operating upon a body from opposite directions, no motion of that body is possible.

Positive attracts, negative repels ; this is the nature of the action of the two forces, or the two members of the one force. This only occurs as an effect of a dissimilarity of the atoms composing the two currents of the fluid coming in contact. While actual interchange of atoms of the two currents takes place, the great mass of the two opposing currents are repelled from each other, being dissimilar matter. It is only when matter is affinitized that it can associate—only when bodies or atoms are affinitized that they can associate ; the great

law of affinity determining that like matter shall be attracted, while unlike shall be repulsed.

The negative principle of the dual force being a spiritualized force, acts as a weaker force in contact with a stronger physical, or an overbalancing current of the physical, which physical is termed the positive, being, in that case, the stronger. Unequal action of the positive and negative, as thus illustrated, causes motion—stimulation of motion of atoms, motions of atoms and bodies to, and from, centers, and around centers; while the actual interchange effected by the co-operation of the currents, although unequal, determines atomic action instituting form in the atoms or bodies thus actuated by this unequal action.

Positive action, negative action, as of bodies upon other bodies, atoms upon other atoms, as has been stated, is stronger and weaker relative action. A body attracts another, being of like matter and physically stronger. This signifies that the overbalancing positive, or physical, of the positive body overcomes the weaker spiritual of the negative body, and in consequence, the negative body is attracted to the positive. In this case, actual interchange of positive and negative—physical and spiritual, takes place; yet the forces being unequalized forces, or of different grades, the great mass of the negative body is attracted to the positive. Bodies attract bodies of diverse grades; physical currents attract spiritual of diverse grades, otherwise this could not be; as it is the action of the physical upon the spiritual, the spiritual upon the physical, which originates attractive force—all motion. A body repels another, being actuated by an overbalancing negative;—this signifies, that the form through which this negative acts being a negative form, or of lower grade than that through which the opposing positive acts, but being of a grade affinitizing with that, an overbalancing current of spiritual—negative, can act through this form, and thus repel the positive. It is thus that suns are repelled from centers; the negative in this case acts through a lower form

of matter, yet sufficiently affinitized to the positive form to act with it ; and acting through an overbalancing quantity of matter, it is the stronger force ; the positive is repelled.

Matter being dissimilar, repels ;—this only signifies that the spiritual repels the physical, being dissimilar from it ; and only repels such of that as is most dissimilar, or of a grade too far below its own to affinitize in any degree with it. All matter is charged with electric fluid both physical and spiritual, and these fluids are of corresponding grades in each grade of matter ; therefore, as bodies are by circumstances brought under each other's influence, they attract or repel according to the quantity and quality of the physical and spiritual electric currents pervading the bodies.

When a form is first instituted in a universe of primeval matter, the repulsive force—the negative or spiritual, acting with the attractive—the positive or physical, for the institution of that form, is the atomic sphere of individualized mind pervading matter. So unaffinitized is this sphere to the low physical which it permeates, that an eternity, or cycles of eternities, only suffice to cause them sufficiently to affinitize to act reciprocally upon an atom for its impregnation. This is accomplished by the effect of atomic action in eliciting the highest possible atoms from the physical and the lowest possible from the spiritual ; these act together for the stimulation of the central atom of the sphere, being equalized forces. Continued action in matter eliciting higher forms of the spiritual, a second stimulation is effected in a shorter space of time than was required to effect the first. Thus each successive stimulation is effected in a shorter period of time than was the last, until matter has arrived at that stage of development wherein it evolves spirit ; when all motion—all development, is quickened—stimulated, by the action of grades of spirit upon affinitized grades of matter, in periods corresponding to the periods occupied in the evolution of these grades of spirit. Stimulations of motion instituting suns of the various orders, those introducing eras, minor eras,—

all eras of whatever grade, result from the reciprocal action of the positive and negative, the physical with the spiritual, of whatever grade that spiritual may be, according to the above exposition. All grades of spiritual are ceaselessly operative in the universe of physical, according to their power upon this physical; and thus, grade assists grade in the stimulation of matter, in forwarding the processes of development.

Periodic stimulation of motion of matter results from the necessities of nature, caused by the continual partial loss of equilibrium of the forces by the grades in process of development in ascending order; thus:—The first developed grade of developing matter first experiences the loss of equilibrium of its inherent forces; that next developed, subsequent to this; and thus the several grades in their order of development. As there are grades of grades—subdivisions of grades, these stimulations must succeed each other perpetually, that the necessities of all grades of matter may be met.

Action is perpetual between the physical and spiritual in man's organization; correspondingly is it perpetual between the corresponding principles of the Deific Organization. Yet man's organization has its periodic seasons of rest—its night of sleep; in perfect correspondence, the Deific Organization has its periodic seasons of rest—its night of sleep. This night is the period wherein matter is disorganizing, and that succeeding its disorganization—wherein is no action, save that of Deific Electric Force upon disorganized matter.

What signifies Deific Electric Force? According to the above exposition, this force is organized spiritual man; or the atomic sphere of mind permeating the physical universe; and the action induced upon gross matter from eternity, by all the successive stimulations of motion instituting compound cycles of action, periods of action, &c. is induced by the agency of organized Deific Essence existing in the universe of God from eternity, and which essence is atoms of the Electric Fluid which connects God's Spirit with His Physical Body.

—Of this atomic sphere of mind—this organized Deific Es-

sence, through which the Deific Mind acts upon physical nature, as mind in man acts upon, and through, man's body, it is well to state in this connection, that an understanding of the method of this action, or its exact nature, can not be conveyed to mind without first portraying the method of spiritual existence; without first describing the nature of the spheres upon which spiritual beings of the various grades, dwell; as second, third, fourth, &c. and the nature of the transformations which occur to matter and mind, so termed, in the spheres. The consideration of these subjects does not properly belong to this volume; therefore, no further explanation of the nature or method of action of the above named force will be here given.

Is it objected to this theory, that from matter was man developed—through the agency of matter; therefore, man from eternity could not have existed; the existence of gross matter must have preceded the existence of man; the inquiry arises: How did the Deific Organization exist without the link binding the parts together? Is gross matter necessary to the development of man, in the economy of nature, man is as necessary to the development of gross matter. Whence the supply of matter from which forms are instituted as eternity succeeds eternity, cycle succeeds cycle, compound cycle succeeds compound cycle in a perpetual circle? It is answered again; perpetual interchange in the perfect form of Deity perpetually supplies all the wants of that form—interchange of positive for negative, negative for positive, as these forces are exhausted by action in the spiritual or physical universe. A lost proportion of spirit—absolute positive, is supplied by a proportion of negative; which negative, in combining with positive, loses its physical nature—becomes spiritual; upon the principle, as before explained, that elements lose their individuality in combining to form new elements. A lost proportion of physical—absolute negative, is supplied by a proportion of positive, which proportion loses its spiritual nature by combining with physical, according to

the above named principle. It is upon the principle that elements lose their individuality when combining, that ponderability is developed as the physical progresses from its low vapory form to the high planetary ; and imponderability, as physical progresses to the spiritual plane.

Positive is perpetually supplied by the perpetual transformations of forms in the spiritual universe, as negative is by the perpetual transformations of forms in the physical. This interchange—the method of interchange, can only be fully illustrated by the full discussion of the subject of universal development—development upon the physical and spiritual planes ; therefore the reader will gather the truth upon this subject—the evidences of this interchange, as the subject is pursued in this and succeeding volumes. The subject of Deific Existence, and man's immortality, will be more fully treated in the volume devoted to the analysis of the spiritual universe, as it is more properly of the subjects therein to be discussed. Let the reader beware of hasty conclusions in studying these subjects, otherwise he may repeatedly be compelled to re-form his opinions—establish a new base. They are subjects upon which the wisest stumble, and which the eternal years of man's life will only suffice to settle to his complete satisfaction, as is evident from their nature. When law shall have developed man from the earthly plane to higher planes of thought and reason, he will comprehend what is now far beyond his thought or imagination. Let him patiently scan the broad fields of science and investigation, and glean truths by this process, which shall assist him to reach that plane whereon he may have a broader view of the universe and its Divine Architect than is possible upon his present plane.

All action in nature is similar action. The grades of the electric fluid act upon each other in a positive and negative relative sense, according to grade, quality, or quantity, in correspondence to the relative action of positive and negative, as explained in the foregoing pages. Electricity is of an infi-

nite number of grades, each higher grade acting upon each next lower, and each lower upon each next higher, for its development; reciprocity being the method; as positive upon negative, and vice versa; all action of each grade being the result of atomic stimulation effected by reciprocal action of positive and negative. Vegetation is developed by soil; soil is enriched by decayed vegetation. This signifies that the gross electricity, otherwise, life elements of the soil, combine with other elements—higher electricity, to develop vegetation; that the higher electricity, otherwise, life elements of vegetation, combine with other elements—grosser electricity, to develop soil, and by the described agency of the positive and negative.

Manures enrich soils; the careful agriculturist preserves all the gleanings from his barnyards, sheepfolds, herdcotes, knowing that these will enrich pastures, meadows, and grain lands; he understands, is he observant of effects of the various manures upon soils, that such manures are richer than decayed vegetation—better regenerators of soils. The electric element generated from these manures, if properly saved, is the true regenerator of soils whereon is produced the grasses, the grains—those substances which feed man and those animals upon which he subsists, being of a higher grade than that eliminated from decayed vegetation, possessing an element of the animal nature in its constitution. This electric element is the agent which stimulates the soil by the agency of positive and negative. This soil, intermingled by nature's processes with lower soil, regenerates that. The electric element generated by this higher soil stimulates that lower by the same agency, by intermingling with it. The lowest grade of man stimulates the highest grade of matter below man by the element animal magnetism, whose action upon the next lower grade of the electric fluid is precisely that of a grosser grade upon one below it. Thus grades of matter stimulate grades of matter; each grade acting upon its next lower. Nature's method is precisely

that pursued by the wise agriculturist. By her processes she intermingles higher substances with lower—higher elements with soils, that the proper grades may act upon each other, and thus aid in each other's development—the higher stimulate the lower, and the lower aid the stimulation of the higher.

Electric stimulations, as above described, are appropriately termed physical stimulations, or stimulations by the positive physical, as it is a commingling of higher physical elements with lower, inducing evolution of new or higher elements from the lower. This is the principle—the method by which atoms are evolved to the appreciable physical form; the commingling of a higher grade of the electric fluid with a lower, which higher stimulates the lower to a greater degree of action, which induces evolution. The higher electric element commingling with the lower, in the case of the evolution of the central atom of the universe, was a higher grade of inappreciable atoms of primeval substance; these acting upon lower, stimulated them to greater action, and hence evolution of appreciable atoms. This principle is that of a positive or male principle of higher grade or species acting upon a negative or female principle of lower grade or species, effecting impregnation. A positive physical of higher grade operates upon a negative physical of lower grade for the institution of form, only through two grades; (a corresponding negative is not here signified; but a negative corresponding to a lower positive.) The operation of this law may be observed in the effects of copulation of animals of higher and lower species; as higher male with lower female.

A positive physical of lower grade acts upon a negative physical of higher grade through many grades. Thus: The stimulations effecting the renewal of action in a universe at the commencement of a long or short period of action, the successive stimulations of matter of different grades preceding the second stimulation, termed evolution to the appreciable physical form, are stimulations; or, as it is termed, impreg-

nations, resulting from the action of positive physical of lower grade upon negative of higher grade. This is the action of lower physical upon higher physical, the lower being the overbalancing or positive force. Thus all the lower grades of physical substance constituting primeval matter, act upon the highest grade, as upon a negative, for the first stimulation of motion in the universe of primeval matter; the spiritual acting through this highest grade, which, together with the fact of its being the weaker physical force, constitutes, as the reader understands, this the physical negative. In this case, there are absolutely many grades intervening between this lower positive and higher negative; as the physical acts through the grades of primeval matter which are unevolved — unstimulated by the effects of this action, while the negative acts through the highest grade of the evolved grade, which is constituted of an infinite number of grades.

The action of this law is further illustrated by the stimulations of action introducing eras of all grades, as cometary and planetary eras, &c.; which stimulations result to the various orders of suns from parental influence — the influence of the lower over the higher. The operation of this principle is observable, in a degree, in the effects of copulation of animals of lower and higher species; as lower male with higher female. It may not be as distinctly proved by observation of the animal species as upon inahimate nature, from the method of formation of the different species; the individuals of the male and female of the lower and higher species being so constructed that copulation is impossible, or effected with the greatest difficulty. This is nature's provision for the prevention of deformities or monstrosities among the animal species.

This latter grade of stimulation, termed the first stimulation, occurs successively of grades, from lower to higher; and the former, that termed the second stimulation, successively

from higher to lower ; and by these two methods are the processes of formation of universal development effected.

To exemplify : A grade of matter is stimulated by the first stimulation ; this signifies, that by the reciprocal action of lower positive and higher negative, action is stimulated. This stimulation effects the introduction of the second ; thus : The action of the higher grades of that substance upon the lower, is stimulated, which action by continuing for a sufficient length of time will induce evolution of an atom or atoms to the appreciable physical form. Thus the first stimulation, in this case, effects the second, and thus nature acts in all cases ; it is for man to study and detect this action in the constitution of the various forms of matter.

Spheres are stratified in conformity to the law of positive and negative, possess their positive, and negative organs, and organs which are termed positive and negative ; also they are divided into positive, and negative hemispheres, so termed, in correspondence with the positive, and negative hemispheres of solidified bodies ; which hemispheres—a sphere being cometary matter—are the positive, and negative grades intermingled according to the necessities of the sphere.

Solidified bodies possess positive, and negative organs, and organs which are positive and negative ; also positive, and negative hemispheres ; which hemispheres occupy, each, one half the form of the body, and are opposed to each other as northern and southern hemispheres. The action of forces, not here to be enunciated, fix the locality of positive, and negative matter of a sun when that sun is in an early cometary stage ; however, previous to the period of the fixing of the two grades, the positive, and negative intermingle ; the matter of the body being of such rare quality—so nearly of the grade of spherul matter, that it is not subject to the forces which regulate matter of forms—fix the position of positive, and negative hemispheres, poles, &c.

In nature, the office of all forms is to act as propagators

of forms, through the agency of positive, and negative, or male and female organs ; and as propagators of force to other forms. Forms act as agents for the manufacture and transmission of the positive, and negative ; or as positive, and negative forms ; and as recipients of these fluids ; or as positive, and corresponding negative forms. Matter of all forms is positive, and negative atomic matter, in equal proportion ; while every individual form has its office as positive and negative, positive, or negative, according to its constitution, relative position, and relative office, in a sphere, or system of forms.

In a stratified sphere, as a sphere of unevolved primeval matter, strata are arranged in perfect position according to the great law of matter determining that central organs shall generate fluids for the use of systems ; that positive, and their corresponding negative organs shall be situated each in juxtaposition with positive, and negative ; otherwise termed, central organs ; or relatively so situated. The office of a central organ is to attract from nature corresponding positive, and negative to itself, and manufacture from these in combination, higher fluids of the same nature, which it is to dispense to the corresponding positive, and negative organs of the system. Thus the central positive and negative organ of a form is termed the highest of the form.

Every form has its spiritual and physical centers, so termed, and its corresponding spiritual and physical positive and negative. In the human organization, the heart is the physical center, or physical positive and negative organ ; while the other vital organs are the positive, and the outer organs the negative. The brain is the spiritual center of this organization, or the positive and negative organ on the spiritual plane ; and the nerves the positive organs, and the blood vessels the corresponding negative.

Through the agency of the heart, or physical center, the physical life-forces of the system are generated ; while by the

agency of the brain, or spiritual center, the corresponding spiritual life-forces are generated. In a sphere of unevolved matter, the physical center is the second division, termed the central; this division fulfilling the office of a central organ, being termed the positive and negative division; while the central—that composing the third or interior division, being the most condensed matter of the sphere, is the spiritual positive and negative, or center.

The method of stratification of spheres, as it will be discussed in the following pages, together with the above explanations, will give a proper understanding of nature's order of arrangement of matter prior to the evolution of forms—the institution of qualified central organs or parent forms, and qualified positive, and negative forms.

In a system of suns, the physical center is the central body—the generator of the forces of the system, and the corresponding positive, and negative organs, are the formations of the system evolved by this central formation; the negative being those occupying the outer section of the sphere, the positive, those intermediate between these and the central body. In such a system, the spiritual center is the most condensed matter of the system—the highest quality of developed substance, while the corresponding positive, and negative organs are the two grades, positive, and negative, to each other from their inherent quality or grade of condensation. The further discussion of the subject of universal development will illustrate the above propositions.

Nature provides diverse forms, as male, and female, in her higher orders, through which the positive, and negative, may act for the propagation of forms; and through these forms only, can the male and female principles act for this purpose. The physical positive is personated in the form of man, and the male of the various species of animals and some species of plants; the physical negative, in the form of woman, and females of the various species of animals and plants. In all

the lower orders of forms, the positive and negative, male and female, act through the same form for the propagation of forms; thus: A sun combines the male and female organs in its constitution, and produces forms by the legitimate action of these principles.

Suns are positive and negative to each other in a relative, but not in an absolute sense; all forms are positive and negative to each other, relatively. This signifies that atomic action of one sun, or other form, upon another, is either positive or negative relative action; which atomic action is the action of the magnetic fluid generated by the one form upon that generated by the other; which action propagates growth of forms—aids in the development of forms and surfaces. A sun is positive to another sun when it is of more highly qualified matter, or of an overbalancing mass of matter, and will act as a positive to that for the stimulation of atomic motion or growth of both forms; the two acting as one positive and negative, and together manufacturing a higher force to feed the two forms. A female is positive to a male when her's is a more highly developed organization than his, either physically or mentally; and as positive, this female organization will act upon a corresponding negative for the stimulation of atomic motion of matter or mind, as the positive sun acts upon the negative; stimulation of atomic action of both forms, whether physical or mental, resulting from this action, as in the other case. The stronger electric fluids acting through the positive form, be that form male or female, operate upon the weaker electric fluids of the negative form, be that form male or female, as the positive ever acts upon the negative for stimulation—stimulation of atomic action of the individual forms.

The intrinsic quality of the male form constitutes it a positive form in the sense of being a propagator of the species; and the intrinsic quality of the female form constitutes it a negative form, in the same sense. When men have learned

to recognize the spiritual as pervading the physical—that the physical is both spiritual and physical, then they will recognize the truth of the proposition, that the vitalized electric fluid is of two natures—acts as a dual force; and that either element of the dual force, is no force without its corresponding element.

Electric force is of two grades, each grade subdivided into an infinite number of grades. The higher grade is termed Deific Electric Force, from its nature; it being force propagated from the Divine Mind. The lower is termed physical electric force from its nature; being propagated from the physical. That only is termed Deific Electric Force which institutes formation at the beginning of a period of action, as explained; as only then can it be said to operate alone for the institution of form; as subsequent to the institution of the first form, forces originated by matter co-operate with this force for the re-stimulation of matter—the institution of form. The spiritual acting with the physical, as it acts through physical, is termed physical; therefore, all forces exercised upon matter, save this one force in this sole instance, is termed physical electric force.

The subdivisions of a stratum are twelve, corresponding with the subdivisions of a sphere. A stratum is first divided, as already stated, into three qualities, which qualities are divided into four grades each. Each subdivision of a stratum of the universe, and of the first two orders of suns, evolve formations separately; which formations are the subdivisions of a great formation. Unlike the twelve strata of a sphere, these subdivisions of a stratum do not evolve their formations from the outer to the inner successively; they evolve them according to electric quality of matter and position combined. The central division, composing four subdivisions, first evolves its formations. This division comprises the positive and negative matter of the stratum, while this matter is stratified in conformity with all matter of the sphere; the most dense

occupying an interior position. The central subdivision of this division, first evolves its forms; this is the third in order from the outer, this being from inherent and electric quality combined, the highest of the subdivisions. However, this subdivision does not evolve all of its forms prior to the evolution of any other formation of the division; in the universal sphere, six are first evolved by this subdivision, comprising the highest matter of the subdivision; following which, is the evolution of its entire formation by the next outer subdivision. This next outer, being of comparatively high quality of matter, and possessing advantage of position over the next interior—more dense, first evolves its formation. The central subdivision next completes the evolution of its formation; following this, the next interior evolves its formation; following this, the next outer one not having evolved its formation; thus the remaining of the twelve subdivisions of the division consecutively evolve their formations.

The balancing formation of a stratum, so termed, comprises the largest forms of the great formation occupying the stratum; they are the balancing forms of the formation. The central stratum of the second, or central division of the universe—of any sphere, evolves the largest forms, the most massive formation of any sphere, save the outer; which, as already stated, evolves the most massive formation of the sphere; in this sense, the central subdivision of a stratum corresponds to the central subdivision of a sphere. The third of the four subdivisions of the second division of a sphere, is the seventh stratum of the sphere, so termed; the seventh subdivision. This stratum evolves the sixth formation, which, in every sphere, is the balancing formation; termed such from its office in the sphere—the preponderating size of its forms. The six first evolved forms of every formation of the universe, are the largest of that formation; while all the forms of the minor subdivision evolving these, are larger than the other forms of the formation. In cor-

respondence with this, the sixth formation of every sphere comprises the largest forms evolved by any of the subdivisions of the sphere. Thus the reader will perceive the correspondence between the subdivisions of a sphere, and the subdivisions of a stratum; the divisions of a sphere, and the divisions of a stratum; also of formations and minor formations. By a careful study of the above exposition, he will be able to comprehend the method of nature's action in the evolution of suns, and the reasons for this method.

According to the arrangement of the universe, or any system of the universe, the number of the stratum can not be the number of the formation occupying it. The first or outer stratum evolves the matter of the central body, which is properly the twelfth formation, being interior to the outer eleven; while the second stratum evolves the matter of the outer formation, which is properly the first. This arrangement, unavoidably, causes confusion from the diversity of the number of a stratum from that of the formation occupying it. The careful reader will avoid any misunderstanding of what is said relative to formations and strata by keeping the true arrangement before the mind, and the necessity for this arrangement.

The period wherein are being evolved the twelve formations of a sphere, is divided into two cycles; which cycles are subdivided into periods of action and rest, according to the subdivision of cycles of eternities; each period of action comprising that period wherein is being evolved one great formation, and the succeeding one of rest; a period corresponding with that wherein is evolved one formation of a stratum, or one twelfth of the period wherein one great formation is evolved. This period corresponds to the period of rest intervening between the cycles, which period is one seventh of the length of the cycle; and as that is reckoned into a cycle as part of that period, so this is reckoned into the period of the evolution of a formation. Correspondence is nature's method.

The cycles have their representatives—correspondences, in the periods of the evolution of formations in every order of suns, of which there are twelve in each order. The seven cycles of a compound cycle, have their correspondences in the periods of the development of the orders of suns—seven grades of matter. Succeeding the evolution of the six orders, which period is an eternity of action, is the corresponding period of rest; the eternal night. This corresponds to the compound cycle of rest, succeeding that of action. These periods of rest are nature's sabbaths. Corresponding to these, there are minor periods; higher and still higher manifestation of the law through all development; eras, minor eras, and subdivisions of these; still minor eras and subdivisions of these.

Nature, just to her laws, arranges all things subservient to them. Man discovers this arrangement in the periodic change of seasons; the succession of day and night, and in the constitution of his own system. He has but to trace nature's plan in these, to discover her correspondences within the limits of his own observation, in order to impel him to the belief that these are established from eternity, to eternity shall remain established. This work is an exposition of the principles of nature; it tells man truths hitherto untold; declares principles hitherto undeclared; yet, it points to no truth, explains no principle, which man's observation, aided by his reason, can not indorse. The sabbath, termed by some an institution of man, man has observed from unrecorded periods of the past; the law written in his nature demanded the rest of the period—the sabbath which God ordained, not man. Man observes the changes of seasons, succession of seed-time and harvest, summer and winter, day and night, God ordained from the period of Earth's first existence; experience teaches him that these must succeed each other, or nature's order be destroyed. From these observations, he may accept the statements made in this work

relative to the eras, periods, eternities, cycles, compound cycles, and complete periods, of the past.

During this period of rest, motion continues in all matter, yet it is insufficient motion to inaugurate form—to induce procreative action. Re-invigorated by this short period of repose, matter awakes to renewed activity; motion is stimulated by rest, to that degree, that procreative action again impregnates centers.

The evolution of the second formation was followed by that of the third, the third by that of the fourth, this, by the fifth; the sixth is now in process of evolution. The first six suns of the central formation of this, have been evolved; also a portion of the formation which succeeds this in order of evolution. These forms, as remarked of all forms of balancing formations, are more vast than those of any other formation already, or to be, evolved. Of more dense matter than the outer formations, they are yet more vast; their diameters measuring far more than those of the rarer, rarest suns.

Strata narrow in depth toward the center of the sphere; more space being requisite for containing a certain mass of matter, it being rare, than for an equal, a greater mass of dense matter, according to quality of density or rarity. Outer strata of the universal sphere, although by far more capacious than central strata, contain much less matter than these; the forms of their formations are much more sparsely scattered through the strata, and are much smaller. Rare matter develops into rare forms, dense matter into dense forms, appropriately termed. An uncondensed sun of an outer formation is of much larger size than one of equal massiveness of a central formation, of still larger, than one of equal massiveness of an interior formation. By bearing in mind this relative massiveness—extent of strata, the reader will be able to comprehend the relative massiveness of the central formation, the relative massiveness and size of

the forms of that formation of the universal sphere, or of any minor sphere. The forms of the balancing formation, that situated, as the reader comprehends, in the seventh stratum and central division of a sphere, although of much greater density, are, by far, larger than those of any formation outside of it, from the period of their first evolution to that of their perfect condensation. Although they revolve in a stratum less capacious than the contiguous outer stratum, they are yet of much larger size than the forms of this stratum. The law of size, and of distance of formations from the center, and from each other—the law of decrease of depth of strata towards the center, will be elucidated in a future section.

Balancing forms; this signifies ponderable bodies whose united mass is sufficient to balance the mass of the formations on either side of it—all the formations on either side of it, subject to the forces which the central body, and each, and all, of these formations exert over each, over all these;—forms whose attractive force is a counterbalancing force to these forces. The simultaneous evolution of six forms, their assumed positions in opposite localities of the universe, preserved its balance from the period of the evolution of the first six; the evolution of the balancing formation, preserves the balance at present, as that of the preceding formations have done. The evolution of the interior formations will necessitate this as a balancing one. The central sun, perfected interior matter—forms, would, together, constitute a force which would overbalance the force exercised by bodies upon each other, and outside forces; would cause disorganization of the universe, as interior forms and formations perfect, without the existence of a balancing formation—a formation so situated that it is constituted such. These forms—all forms of the balancing formation of the universe, being of vast size, compared with other forms—all other forms of all formations, will exercise powerful attractive force upon these during their period of development, as irregularity of orbital

motion causes them to traverse the spaces allotted for their development, being cometary ; will exercise powerful attractive force upon them after their orbital motion shall have been regulated—perfected ; as they, like the central body, propagate their force according to quality and quantity of matter.

Quality of rotary motion of suns is determined by quality of motion of central atoms—by quality of matter of central atoms. An atom being of positive and negative matter, so termed—combining the two electric qualities—possesses motion, qualified according to the grade to which it belongs. An atom being of positive matter, or positive electric quality, possesses a positive quality of motion, according to the grade to which it belongs ; and an atom being of negative matter, or negative electric quality, possesses a negative quality of motion, according to the grade to which it belongs. A negative atom being of high grade, may possess a higher quality of motion than a positive and negative atom of low grade ; thus with a positive atom. The gradations of matter are infinite ; the gradations of motion of atoms and forms are infinite ; and susceptible of all possible variations in order of arrangement ; as of positive and negative, positive, negative.

Quality of rotary motion of forms is determined by inherent quality of matter of strata from whence their central atoms are derived, qualified by electric quality of such matter. Central atoms of all forms of a sphere being derived from the three interior strata of the sphere—all positive and negative strata as to inherent quality of matter, it will be easy to determine the relative quality of motion of atoms derived from each stratum. These strata, being divided and subdivided according to electric quality, several circumstances are to be taken into consideration in deciding the quality of the motions of atoms of a stratum as a whole ; first, the number of the stratum ; second, the division of the stratum ; and third, the subdivision.

The electric quality of the matter of a stratum affects the quality of atomic motion of matter of a stratum as it is evolved, therefore, the inherent quality of matter of a stratum relatively determines the quality of motion of central atoms derived from it. There is no absolute determination of the quality of central atoms from circumstance of quality, or order, of the strata evolving them. The three interior strata of a sphere, of most condensed matter of a sphere, have the quality of rotary motion of their atoms so qualified by electric condition at the period of the evolution of these atoms, that the outer of the three strata develops central atoms of a higher grade of rotary motion than the interior. The tenth stratum evolves central atoms for the four outer formations, whose quality of rotary motion, decided by that of their central atoms, is highest of any of the sphere. The eleventh, evolves the central atom of the next four, whose quality of rotary motion is of the next grade lower than that of the four outer, but higher than that of the three interior formations, whose central atoms are derived from the twelfth stratum.

Position of the tenth stratum nearest the positive and negative division of the sphere, determines that quality of rotary motion of atoms of this stratum shall be most qualified by electric condition, and qualified to the degree that it is of a higher grade than that of any derived from the more condensed strata. The positive and negative matter of the positive quality is arranged next the positive and negative division, being nearest assimilated to that in electric condition; while the positive is intermediate between this and the negative. This is the arrangement of divisions of a sphere, divisions of a stratum, and divisions of a subdivision of a stratum; the highest qualified matter, electrically, of a stratum being always the central matter, as before explained.

The relative quality of rotary motion of the outer formations of a sphere, as of all others of the sphere, differs accord-

ing to the subdivision of the stratum from which their central atoms are derived. Thus: The rotary motion of the four outer formations, or the forms of those formations, will be diverse motion, from the fact, that their central atoms are derived from different subdivisions of the stratum;—from the different qualities of matter of the stratum; as from positive and negative, positive, negative, matter; thus will the rotary motion of the next four formations be diverse, though their central atoms are derived from the same stratum; being derived from different subdivisions of the stratum, or different qualities of matter of the stratum; and thus also with the three interior formations.

The three outer strata of spheres, though of negative quality of matter inherently and electrically, yet possessing most developed orbital motion, or motion determined by the rotation of the sphere, are termed positive and negative strata; the three next, from their relative quality of this motion, are termed positive strata; the three next, negative. This causes a correspondence between electric quality of central atoms of forms of a formation, and quality of motion of the other matter of the form, throughout the system. Thus, the tenth stratum is of positive and negative matter, mostly, of the positive electric quality, while it gives centers to matter of two strata of positive and negative, two of positive matter, relative to quality of motion—the second and third, fourth and fifth outer strata; the eleventh stratum is of positive matter of the positive quality, while it supplies centers to matter of one positive, and three negative strata, relative to quality of motion; three of which are of its negative subdivision; while the twelfth stratum, being negative matter of the positive quality, supplies centers to the matter of the three interior strata from its three qualities corresponding to the three relative qualities of the three strata, and a center to the central body from matter from its positive and negative quality.

This central atom was a negative atom of the positive quality, as qualities are divided; it was also a positive and negative atom of this negative quality, as qualities are subdivided. This determines that the central atom of the central sun,—as of central bodies of all spheres, was derived from the positive and negative division of the twelfth stratum of its sphere. This determined a correspondence, as remarked, between the electric quality of the central atom of the central body, and the relative quality of its other matter.

So called centers of universes and of minor spheres are not centrally situated relative to the circumference of the sphere, or form, deriving their central atoms, as they do by this law, from the second division of the interior stratum. Centers of gravity of systems and suns, are, therefore, not located at the local centers of these forms, but in their positive hemispheres.

The twelfth stratum of a sphere, by a law as strange, as wonderful, as it is evident and necessary, occupies a larger comparative space than any stratum of the sphere—larger in comparison to the density of its matter. At first view, this proposition seems incredible, and contrary to law, or precedent; yet, upon investigation, it is found to be law, precedent.

The highest quality of matter of a sphere;—this signifies matter developed to that degree that separate atoms eliminate spheres of repulsive force,—repulsive to like atoms; which spheres, from the innumerable multitude of these atoms, occupy vast space in the sphere. This is nature's provision, without which, no sphere could develop its forms;—without which, no central body could exist and yet all the other formations of the sphere be properly developed. This space is sufficiently extensive in all spheres to permit the development of the eleventh formation—that evolved by the twelfth stratum, outside the repulsive sphere of the central body. The eleventh formation being evolved from outer matter of the

twelfth stratum, occupies the outer section of that stratum ; a section where matter is not sufficiently condensed to eliminate spheres of repulsive force like those of atoms of more interior matter of the stratum.

Matter being of the two qualities, naturally, forms of each quality, and of the two qualities combined, were developed from it. Positive and negative forms, positive, negative, ones, were developed from corresponding qualities of matter of the universal sphere. The relative arrangement of the three qualities of forms, and their uses in a sphere, have been stated ; therefore, it is only necessary to state that the several relative qualities of matter constituting forms of the several formations of a sphere, are not taken into consideration in deciding the quality of forms ; but only their absolute quality as physical forms.

Equilibrium of force is nature's method of inducing action in universal matter ; of inducing formation—all processes, all motions. Equilibrium of positive and negative was equilibrium of attractive and repulsive—that equilibrium which resulted in stimulation of atomic motion of atoms. This signifies that atomic motion of atoms was not equilibrated when rotary motion of atoms, as such, was stimulated.

Atoms are of infinite grades of sizes, as are forms ; atoms of atoms, is the method, to infinity. The grade of size of atoms of primeval substance can not be illustrated to mind in the form, as they are, from their size, inappreciable to physical sense ; therefore, it is sufficient to say, that the inherent forces of the atoms composing the central and other atoms are not equilibrated ; therefore, they move among themselves when equal positive and negative—attractive and repulsive, act upon the atomic forms which these atoms compose. This is nature's method of carrying on her processes of development. Were positive and negative equilibrated forces throughout all matter, no action could result ; but being equilibrated in the higher grades of sizes of atoms, as

above stated, stimulation of motion of these, is the institution of formation in grades below.

The very act of stimulation of motion of universal matter destroyed the equilibrium of forces of matter relatively, therefore, formation could result; (as positive and negative could not otherwise be used as relative terms; could not thus be used, unless their action, when thus used, corresponded with their action when used as absolute terms.) The motion of the central atom, being stimulated, was such developed motion, as compared to that of other atoms of the universe when stimulated, that the equilibrium was lost; in other words, that formation could ensue from the diversity thus instituted. The central sun, developed where equal forces acted perpetually upon it, retained its place at the center of gravity of the universal form. The forms instituted within the central sun, retained places there only while equal forces acted upon them; thus it is evident, that destruction of equilibrium of attractive and repulsive forces develops outward motion of suns; while restoration of equilibrium develops perfected orbital motion of suns. Unless suns had been repelled from the central sun, no further development of universal matter could have succeeded; unless irregularity of orbital motion had succeeded evolution, no development of suns could have succeeded their evolution; and unless perfected orbital motion of suns is attained — equilibrium of attractive and repulsive forces — the perfect processes of formation, of development, can not ensue.

The universal law is equilibrium and non-equilibrium; — major forces in equilibrium, and minor, in non-equilibrium; the highest developed forces of the grades under development in equilibrium; the lower, in non-equilibrium. To illustrate more clearly this proposition: The human system, being a type of all inferior systems, is the one most appropriate by which to illustrate this proposition. First: formation is never instituted in this system without the equal action of

positive and negative forces ; impregnation ensues from this action by precisely the same law that induces the first stimulation of motion in universal matter ; it is a higher exhibition of that law. Impregnation once effected, formation ensues because of the stimulation of the circulation of the major fluids—the blood, the nervous fluid ; the atomic motion of atoms of these fluids has been stimulated ; in other words, the minor forces are not in equilibrium. This proposition is proved by clairvoyance, besides being evident from analogy. Again : The various organs of the human body are stimulated by various processes ; the stomach by food ; the brain by rest ; the muscular system by both ; in each of these cases the action is precisely that induced by the stimulation inducing impregnation — procreation. Atomic action of the system appropriates food, atmosphere, magnetic fluid, to the use of the system after the stimulation of the various organs. It is only when exhaustion of the system occurs for lack of some element, that re-stimulation is necessary ; the stomach being, so to speak, in telegraphic communication with all parts of the system, craves food when the system needs it ; the brain thus craves rest when the system needs it ; the blood, atmosphere ; the surface, magnetism.

Equilibrium of minor forces attained, that of major forces is lost ; action ceases in the system—death ensues.

The universal system disorganizes when loss of ponderability from one of its minor systems—as a balancing system of another minor system—induces disorder within it ; universal disorder results from this loss of equilibrium of minor systems. By law of development of universes, this does not occur until equilibrium of minor forces of the universe is attained. This signifies, that the development of the higher orders of suns, has attained that degree of perfection, that absolute positive force—spirit, is developed by them in sufficient quantity to balance the absolute negative force—the physical. This metaphysical distinction of forces is an actual

distinction; as proved from analogy through the action of the same forces in all forms. The human body disorganizes when the system ceases to draw upon its vital organs for supply; this cessation only occurs when forces are in equilibrium, attractive and repulsive acting equally. There being no draft upon these organs, they have no power to draw upon the elements for a supply whereby to induce a re-stimulation of themselves; therefore, the electric fluid which is manufactured by the system (which is the animal magnetism) from these minor fluids, being in non-equilibrium, ceases to be manufactured; severance of the physical from the soul principle occurs in consequence; disorganization of the physical occurring in consequence of the inability of the system to manufacture its life-elements.

Progress is the universal law of nature. All matter is progressing in infinite degrees of comparative rapidity. Evolved matter progresses in degrees appreciable to human understanding; unevolved matter of all grades, in degrees inappreciable to human understanding. Development of unevolved matter through the periods of a compound cycle, through a complete cycle, is only development of successive grades, a single degree higher during each successive period of the cycle through a compound cycle of action, and one degree through a compound cycle of rest; which degree is an entirely inappreciable one to human intellect uneducated as to the nature of primeval matter, and as to grades of motion.

Progress progresses. Evolution of matter results from progress in degree of stimulation in motion of atomic matter. Successive stimulations, each inducing a higher degree of motion proportionate to the existing degree, result in the ultimate evolution of matter. Subsequent to evolution, by this law, development progresses more rapidly, and still more rapidly, until the universe has evolved all its forms; or, until disorganization of it ensues. The effort of nature, from the beginning, is the evolution of spirit, and its individuali-

zation. The successive development of grades from evolved matter, is more appropriately termed progress, than the inappreciable degrees of development of motion of existing grades of primeval matter. Progressive law determining the evolution of spirit thus by the development of grades from evolved matter, determines the retrogression of matter;—a retrogression which shall determine further progression. The evolution of spirit from matter exhausts its energies; extracts, so to speak, its life-forces; therefore, when sufficient of this has been evolved to overbalance its negative—the physical elements of nature, disorganization of matter must ensue. Degradation of matter, resulting from the evolution of individualized spirit, always results in the disorganization of the universe; retrogression of all physical matter of it back to the primeval condition. A single period of action—a day, so termed, is always succeeded by disorganization of the universe, whether during that period individualized spirit has been developed or not. This results, in case of periods wherein such spirit has not been evolved, from the partial development of matter; equilibrium of physical is lost—the balance of systems, by the inability of central formations to evolve forms to maintain the balance. In periods wherein this spirit is evolved, disorganization results from inability of matter to develop ponderability after a certain condition of it is reached—after it is developed to the highest grade; in other words; after it ceases to develop ponderability to balance the loss of it experienced by the individualization of spirit. In both cases, disorganization results from the same cause,—the exhaustion of life-force—of the developed quality of life-force. Universal degradation—entire decomposition, however, never results but after the one developed grade, that stimulated at the institution of a compound cycle of action, has exhausted all its life-forces—until its inherent positive has become exhausted. This results from action of a compound cycle of action.

The primal elements, so called, enter into the constitution of every grade of matter. These elements are in number forty-two; each period of action of a compound cycle evolving one. These elements are not known to the science of man in the first sphere; therefore, they will not here be named; however, they have their corresponding elements in those which are known to that science. They are evolved, successively, by combination with each other after the evolution of the first. The second is evolved by the first, by atomic action of it and unstimulated matter commingling with it. The first is all matter of the stimulated grade; action of this matter with the unstimulated mingling with it, during the first period of action of the compound period, evolves the second element; as the united action of two known elements generates a third. The evolution of the second element during the first period, exhausts nature; a period of rest ensues. Decomposition occurring during this period of rest, is disintegration of what of form was instituted during the preceding period of action by the combination of the atoms of the two elements; not a re-absorption of the second element by the first, as would occur did entire decomposition ensue. The action of the first and second primal elements during the second period, evolves the third. A primal element being evolved, combines with others during the next period of action for the evolution of the next, and for the evolution of form; and it is the disintegration, the decomposition of these evolved forms that constitutes the disorganization which occurs during each successive short period of rest; not the re-absorption of elements composing these forms.

Individualized spirit is evolved prior to the evolution of all these elements; therefore, it is evident that they are not all necessary to the evolution of this, in the true sense; yet as cycles develop,—as action is progressive during cycles, it

is evident that evolution of this succeeds more rapidly as more of these elements are evolved. As elements, they enter into the constitution of all forms, all evolved matter; however, all forms progress more rapidly, the more of these are evolved. It is thus that action during the last cycles, the last periods of cycles, is developed action, compared with that of the first.

The evolution of the last primal element from matter is the signal that its inherent life-force is exhausted; it has nothing more from which to draw to carry on the processes of development. It only remains to disorganize, and reinstate the process of evolving primal elements, when restoration of equilibrium of positive and negative is restored, by a draught from the Fountain Head of the Positive Force of nature.

Action can not ensue in nature subsequent to the evolution of the last of the primal elements, as it is nature's effort to induce evolution of this, which promotes action in matter; it is the draught exercised by the combined primal elements upon nature for something to act with them for the evolution of form. When that something is not in nature, there is no draught for it;—when there is no element to be attracted, no atom of attractive sphere of force, or influence, to be acted upon, there can be no action; consequently, from necessity, action ceases in nature, and ceases from exhaustion. Friction of all atoms of nature, is this described action; motion, termed chemical action, resulting from friction, induces formation; therefore, formation results from this action. And these elements are so combined in the instituted forms of all grades in nature, that man has not yet discovered them, or had the remotest idea of their existence; therefore, it must remain for a future era in his development to disclose to him the nature of these elements, which are differently combined, intercombined, and proportioned, to form the very elements which he has analyzed, and by

whose analyzation he is approaching the condition of science when he can appreciate the existence of these ; the condition of science when he can analyze these. Past experience will teach him, that although his science recognizes no such elements at present, he is not therefore to discard the theory of their existence.

The primal elements constitute the base of all known elements—the base of all physical substance ; they are the lowest elements of nature, inasmuch as re-absorption of these into each other is the lowest condition to which physical nature retrogrades ; the condition where, so to speak, development commences. Of these elements, all, inherently, possess within their constitution all higher elements, but in different proportions ; therefore, form could be developed before all were evolved, or after the evolution of the first. Thus, they correspond to the known elements, electricity and oxygen.

All action in nature is dual action ;—action for the purpose of the evolution of primal elements, and action for the evolution of form ; which dual action corresponds to the dual force, being positive, and negative. The higher action is the positive—that evolving form ; the lower, negative—that evolving primal elements.

The retrogression of matter of constituted forms back to lowest primeval matter, is progression, in that, further progress of matter is impossible after the life-element, as above explained, is exhausted ; in other words, after equilibrium of minor forces is attained. Resuscitation of matter can only occur by the destruction of this equilibrium. In the perfect form of Deity, this destruction is possible, as there is no severance takes place of the soul principle from the physical, as in the human form ; the supply of positive force to the physical in sufficient quantities to forbid severance of these, constitutes this body a self-sustaining body. Through the medium of attractive force, is the chain of being

kept complete within the Deific Organization. The sphere of attractive influence of spirit, is coextensive with the organization; therefore, action is perpetual within that organization—attraction and repulsion, and sufficient of these to insure development at the proper period, as has been illustrated.

The restoration of equilibrium of major forces by the reception of positive by them, destroys equilibrium of minor forces. The superior or positive of these minor forces draws sufficient of its like from the major forces then in equilibrium, to destroy the equilibrium of minor forces. This is precisely the action of the forces of the human system during sleep, as has been already explained. This equilibrium being destroyed, action progresses, as the physical organization of the universe is perpetually telegraphing for a supply of the needed positive from the spiritual, as the spiritual is for a supply of negative from the physical. Interchange is supply. Positive, supplied to the physical by the spiritual, becomes negative or physical by combination with negative in different proportions from those which constituted it high positive; while negative, supplied to the spiritual, becomes positive by combining with positive in different proportions from those which constituted it negative. To illustrate: Man eats; food supplies positive force to his brain—thought magnetism, while the brain supplies energy to the system—physical force, whereby it receives, digests food. A strict analysis of this proposition will prove the above. The system needs external elements to supply its physical and its thought magnetism wherewith to cause action of its germinal spiritual essence; being but an atom of the Great Organization, the circulation of whose life-currents supplies every atom of it; while the Great Organization supplies itself by the constant interchange of the two elements, positive and negative constituting that Being. Disproportion of elements, constitutes imperfection—undevelopment; while

perfect proportion of these, constitutes perfection ;—development. Mind, like gross matter, is constituted of elements ; is constituted of the same elements that constitute gross matter ; it is mind, only because these elements are differently proportioned. The Deific Mind, like that of man, is constituted of elements, and of the same elements which constitute man's mind. These elements in the Deific Mind are perfectly proportioned, which constitutes that Mind Deific. Perfect combination of all qualities of mind in perfect proportions, is the perfect action of positive and negative—the equal action, which constitutes the mind of the universe, Deific Mind ;—which constitutes God, God. Perpetually in equilibrium, these highest forces in nature constitute action perpetual in the universe ; constitute the Omniscient, the Omnipotent, the Omnipresent God ; the Spirit, Whose wisdom overrules all, Whose knowledge comprehends all, Whose power performs all the processes of nature ;—the Spirit which, as Organized Intelligence, pervades the infinite universe, as man's most interior spirit pervades his body ; but whose dwelling place is the Interior Court of the Temple—“The Holy of Holies ;” the Brain, so to speak, of the Universal Organization.

Spiritual universe, physical universe, universe of unevolved primeval matter ; one in all, and all in one ; the universe of primeval matter containing the physical, as the physical contains the spiritual. Infinite degrees of development of primeval matter within the universe of primeval matter ; infinite degrees of development of physical matter within the universe of physical matter ; infinite degrees of development of spiritual matter within the universe of spiritual matter. This is nature's order.

The retrogression of matter, signifies, therefore, the determination of all matter of all physical forms back to its elemental condition ; which condition must be reached before further progress of matter can result.

Disorganization of the universe occurs from loss of positive, as disorganization of the physical organization of man occurs from this cause. Exhaustion of positive from the physical universe, results in loss of equilibrium of it, by the loss of ponderable matter ; as has been already stated. This positive is the physical entering into the constitution of the organized spiritual essences gravitating to the spiritual plane from the physical. Physical is lost by the development of this principle.

This positive is evolved by different forms of the universe of different periods, and by balancing forms at the same period, according to the law determining equilibrium of the universe. The effort of nature is to retain equilibrium of the universe by retaining equilibrium of balancing forms ; each sun has its corresponding sun, which is a sun developed by a corresponding system at the same period with it, of the same size, and corresponding in quality of its motions ; as positive and negative of the same grade correspond ; which sun, according to the natural order, develops with it.

Contingency is the ordained cause of disorganization of universes,—casualty, resulting in the disorganization of a form. Such contingencies ultimate in the delay of development of the positive principle by the disrupted form, to a period beyond that wherein it is developed by its balancing form, being a regularly developing form. Nature determines the disorganization of universes ; therefore, she provides means whereby to insure it ; which means, although results accruing from them are termed contingencies, casualties, phenomena, are laws ; but of as rare action as these contingencies are of rarity of occurrence ; law developed like other laws, by the action of law. The evolution of the later orders of suns determines the possible occurrence of contingencies, and also determines the certainty of their occurrence. Formations being single forms in these, disturbing—developing forces, in cases which can be demonstrated to occur at stated periods

during the period of evolution of these orders, induce catastrophes—the contingencies which result in the disruption of forms. These contingencies can also be demonstrated to occur in such order, in such number, as to result in the destruction of the balance of the universe. A single contingency in the universe, of the character described, would ultimate in its disorganization; however, the action of the law determining them, determines many in the universal system prior to the one which determines the ordained result. Casualties balance each other; therefore, it may be long after the first one, before the last one occurs; before disorder is instituted in the universal system.

This positive spirit being imponderable, its evolution by one of two balancing forms is loss of equilibrium of these forms; is actual loss of ponderable matter to the physical universe; therefore, does but one casualty occur, universal disorder must finally result, as law determines that development of ponderability, and loss of ponderability of forms of the physical universe, shall balance each other during the existence of that universe; or until the ordained catastrophe resulting in its disorganization shall have determined the loss of this balance. The action of this law will be demonstrated in a future section.

It is evident that this is the law of universal development; as otherwise, no equilibrium of forms, of systems, could exist in the universe from the period of the first evolution of positive spirit, by it.

Systems balance each other, as suns balance each other; one system develops ponderability, loses ponderability, in correspondence with its corresponding system, as each sun develops, loses, ponderability in correspondence with its corresponding sun. The corresponding system of another system whose forms are corresponding forms, are in opposite hemispheres of the universe, appropriately termed,—revolve around the central body of the universe as positive, and neg-

ative systems—systems developed from the positive, and negative matter of the universe. These systems are as appropriately arranged for maintaining equilibrium, as of ponderable forms in the universe of revolving systems, as are the corresponding hemispheres of a solidified form—a planet ; or the organs of man's physical form ; and no more can loss of ponderability from one of these systems be unnoted by the universal form, or fail to result in its disorganization, than can loss of ponderable matter from an organ of man's physical form, without a resupply from nature. Man supplies from nature the lost force, while the universe has nothing from which to supply the lost force which has been absorbed by the spiritual universe.

Spirit is of an infinite number of grades ; a number corresponding to the number of grades of physical substance. All stable forms of matter evolve spiritual essences, which correspond to the higher spiritual essences. The term spirit, applies to those essences which are of a nature sufficiently perfected to rise from the sphere of physical substance to that of spiritual ; from the physical plane to the spiritual. The physical plane, signifies sphere of physical matter. All physical matter occupies this sphere ; whether it be forms of a planetary surface, planets, or suns of a system, it is physical substance, occupying the physical sphere.

The spiritual plane, signifies the position occupied by substance too far perfected to be attracted by the physical sphere ; to be retained by that sphere ;—substance whose diversity from the grosser, termed physical, causes it to be repelled by that. This position is the one to which the first evolved spirit of a universe gravitates, by the law of attractive force.

Planetary matter, upon its first development, is organized into forms ; which forms, as the lowest forms of this matter—unstable forms, evolve essences negative to those higher essences which gravitate to the spiritual plane ;—essences which gravitate to higher forms upon the same planetary surface,

and enter into combination with matter for the constitution of these forms, which essences are physical essences. Such forms—the earliest planetary forms, as imperfect crystalline rock, low form of water, unstable vegetable and animal forms, are constituted of such imperfect proportions of positive—such slight proportions of spiritual, that they readily disorganize, and are termed, in consequence, unstable forms. They evolve no spiritual essences, no electric fluids, imponderable upon the physical plane.

The first forms which are sufficiently perfected to evolve spiritual essence, are the lowest stable crystalline rocks. These forms, low though they are, combine nature's elements in such proportions, that, as forms, they are more permanent than those hitherto existing; they are less readily disorganized by attractive forces of surrounding elements. In consequence, when disorganization of the physical ensues—disintegration of the physical elements of these forms, eliminating the interior, the higher elements, termed spiritual, these elements being organized in such proportions that they constitute forms having no affinity for the great mass of planetary matter constituting the body developing them, and being organizations of a degree of permanence, as remarked, they are repelled from the planetary surface as forms. However, not as forms do they gravitate to the spiritual plane; not being of a degree of permanence as organizations, to resist the attractive influences of like forms and of each other—the various classes of forms of this grade which are constantly being repelled from the planetary surface, and which forms gravitate together in upper strata of atmosphere.

Coextensive with the universe, is the sphere of attractive influence of its spiritual sphere, as has been remarked; coextensive with the sphere of spiritual, or physical substance evolving it, is the sphere of attractive influence of every spiritual sphere of the universe. These spheres are as numerous as the orders of suns in the physical universe, and correspond,

in their evolution, to these. To qualify :—The spiritual universe is graded ; its spheres are graded. The six grades of these spheres corresponding to the six orders of suns, with the first grade or sphere, so termed, corresponding to the first grade or central sun, are termed one grade of the infinite number constituting the spiritual universe. To this one grade only—the first, is reference made in this exposition. The grades of spiritual spheres, proper, being six, each sphere is constituted of separate spheres or suns, in number, according to the order or grade of the sphere.

The sphere to which gravitates spiritual substance from physical spheres, is termed the second sphere ; the physical being the first. Each sun of the first order—which signifies its entire system—evolves a spiritual sphere, or sun ; which spiritual sphere is the second sphere to all the bodies of that system ;—the sphere, or plane to which gravitates all spiritual substance from all bodies of that system. In conformity to a law to be hereafter enunciated, the sphere of attractive influence of the positive spiritual sphere of the universe, fixes the location of this spiritual sphere.

By the propagated attractive force and influence of the spiritual plane, these forms of spiritual substance are transported to that plane ; not in forms, as remarked, but in currents of elemental substance ; which, the plane being reached, the strong attractive force being removed that drew these elements together, disorganized the forms which these elements composed—is free to enter again into organization, in obedience to the paramount law of matter, which determines that affinized proportions shall unite. As naturally do these elements recombine on arriving at the spiritual plane, as they combine when evolved to form the life-principle of physical forms on the physical plane ; and upon the same principle. Thus combining, as naturally do they arrange themselves in appropriate positions, according to quality, affinity ; thus forming a plane in exact correspondence to the physical plane

by which they were evolved,—in exact correspondence relative to the appropriate distribution of planetary planes, the appropriate nature of each planetary plane as a whole. Appropriately distributed over the spiritual sphere, in positions perfectly corresponding to the positions of planets in the physical systems, are planes of spiritual substance, denominated spiritual planetary planes, being the planes to which gravitates spiritual substance from the corresponding physical planes or planets. A slight reference, only, is made to the constitution of the spiritual spheres ; this being sufficient for the explanation of the principle under consideration—the arrangement, distribution, of spiritual substance upon spiritual planes ; the nature of that substance, its grades, its office, its destination in the universe.

The lowest forms of spiritual substance gravitating to their corresponding spiritual plane, entering there into form, as above described, are no more permanent forms than were their corresponding physical forms. Decay is the order of physical nature ; corresponding change, the order of spiritual nature. The process of refinement of matter is ceaselessly progressing in the spiritual sphere, as in the physical ; and as in the physical sphere, higher elements are evolved from forms upon their decomposition, and take higher places in nature, and lower elements evolved from these forms, which take lower places in nature, so in the spiritual sphere. As forms decompose in this sphere, higher elements take higher places in the sphere, entering into new combinations, thus constituting higher forms ; while lower elements, seeking lower positions in the sphere—seeking to enter into combination with affinized elements, find positions in the sphere, do they affinitize with that plane—the spiritual ; do they affinitize with the physical plane, being ponderable upon that plane, they gravitate back to that plane, where they find their positions ;—affinitizing elements with which they can combine for the institution of physical forms to supply the places of those

decomposing, whose elements are gravitating to the spiritual plane, or to higher physical planes. Thus there is a constant interchange of substance between the physical and spiritual planes; which interchange is coextensive with the existence of a planet—the physical sphere. As forms progress upon the one plane, they progress upon the other; as elements decompose upon one plane, they decompose upon the other; thus providing position for all elements thus interchanged by the two planes.

This principle is illustrated by the interchange of elements of physical forms upon physical planes. Decomposition of elements necessary to the constitution of a planet, is nature's method of preserving the individuality of these elements; of determining that they shall always enter into the constitution of that planet. Granite rock decomposes—has decomposed since the first institution of that form; yet, granite rock continues to exist in quantities sufficient for the purposes of nature. The decomposition of the older granites, instead of depriving the planet of its osseous system, so to speak, has only furnished material for the formation of new granite. The essential elements of granite, upon the decomposition of this form, always gravitate to lower positions in nature prior to entering into combination again to form granite; while the higher elements seek higher positions in nature, enter into higher combinations with higher elements than enter into the constitution of granite; making part of higher forms; while a higher form of granite is supplied to the planet, to take the place of that decomposed, from prepared elements—prepared upon the physical and spiritual planes, as above described.

These processes of nature upon a planet, suffice to supply that planet with every needed form; and yet, there is no severing the connection between the physical and spiritual plane; a planet can no more exist as physical without the spiritual, than can the spiritual without the physical; than can any form without its life-principle. The granite rock can not

re-form without the element which gravitates to its plane from the spiritual plane, which is its life-principle; water can not re-form—the true form of water, without the element which gravitates to its plane from the spiritual. The perfect action of this law combines, indissolubly, into one, the physical and spiritual universes; unites, by an adamantine chain, Deity with all matter of the universe, from the highest spirit to the lowest atom of unevolved matter.

The evolution of the positive principle, is the institution of a new force in physical nature; a force which ultimates in disorganization of the universe. Imponderable, this spirit is, yet, the positive principle of nature;—the principle to which all inferior nature gravitates, and by virtue of the principles elucidated on former pages.

Imponderability, ponderability, are relative terms; a body is ponderable upon a plane according to the force with which it is attracted to that plane; imponderable according to the force with which it is repelled from that plane. For instance: Granite is attracted to the physical plane with a force sufficient to cause it to overcome all obstacles in the way of its being retained by that plane; the higher magnetic fluids are repelled from the physical plane with sufficient force to cause them to overcome all obstacles in the way of their leaving that plane. All spirit is imponderable upon the physical plane, else it could not leave that plane.

The evolution of imponderable substance in unequal quantities by balancing forms, is the institution of a new force in nature; a force destructive of physical form.

Disruption of a single form, as that of a sun, planet, system, of itself, as compared with the universal system, is as the disruption of one single form of the infinite number composing a species in the orders of nature. Disruption of one single form of a single system, as of ponderable matter, is not the disorganization, disruption, of the system; it is simply, the cause of delay of evolution of this positive principle by

that form. Developing forces would ultimately restore the organization of the disrupted form ; would ultimately develop this principle by that form ; however, as remarked, this being delayed, its ultimate accomplishment is of doubtful contingency ; impossible, is the universal balance lost by this catastrophe. Disruption of a sun occurring, in every case, previous to condensation of it, or of its disturbing body, is destruction of no forms of life ; is prolific of no disastrous results, as of disruption, to any other forms of the same system ; but only of disturbance of developing, regulating forces of the system, delay of development of contiguous suns. Is a catastrophe of this nature balanced in any other part of the universe, it is not disaster, properly termed. Is it not balanced, instant disorganization of the universe does not result. The period arrives when the disrupted form should have evolved spirit, had not this catastrophe occurred—the period when its balancing form evolves this. The evolution of this from the one, not from the other, is not, in any case, the immediate institution of universal disorganization. Delay of development of a sun—disruption of it, is delay of condensation of the several fragments ; the cometary condition is retained long periods by all ; longer by rarer, more undeveloped portions than by others ; as the nucleus, and parts of the form surrounding this.

Cometary matter is less ponderable than planetary. The regular development of the corresponding sun, instituted at the period of its first formation, the undisturbed progress of the form through the cometary to the planetary condition, secures no earlier development of ponderability of its entire mass, than is secured to the entire mass of the disrupted sun by the irregular developing forces to which it is subjected. Nature's laws are just ; universes, systems, were instituted for the development of perfected planets,—conditions appropriate to the production and sustenance of man. Should contingencies of the character described institute immediate

disorganization of systems—which must occur unless ponderability be developed equally by both balancing forms—the great object would be defeated ; universal disorganization would ensue before nature's processes for universal development were all instituted. Therefore, the development of ponderability of all the fragments of a disrupted form, in the aggregate, keeps pace, by law, with that of the corresponding, regularly developing form.

A sun is dismembered ; its nucleus being the most condensed portion, retains its form, is separated from surrounding matter by the disrupting force. Adjoining matter, less condensed than this, more than outer matter, separated by this force from the nucleus, and from rarer outside matter, revolves in fragments, or congregating together as affinitized matter, revolves as a form. Thus, strata of less, and still less condensed matter of the sun are re-formed into what may be termed suns, by the power of attractive force of affinitized atoms, and revolve in orbits of great irregularity ; all, however, corresponding with the orbit of the original sun ; as attractive forces of each upon all, and all upon each, cause them to associate, except in instances when the rarer forms are delayed and retained by attractive forces of contiguous members of the system. They act as developing agencies to each other ; being asteroids, their orbits cut each other at all angles. The more condensed fragments, as the nucleus, and fragments of corresponding sections, develop rapidly under each other's disturbing influences, those of the other fragments, and of contiguous suns ; more rapidly than the original form would have developed, had disruption not ensued, being perfected matter, comparatively, and subjected to superior developing forces. While the more condensed fragments thus develop more rapidly than they would, had disruption of the original form not ensued, the rarer, more undeveloped fragments, being separated from the nucleus—the regulating, condensing forces of the form, are delayed in

their progress ; development of ponderability by them, not ensuing by vast periods of time as soon as it would have done by the form, had it retained its original condition.

Cometary masses—fragments, float, so to speak, in the system, subject to every disturbing force ; regulated by no self-developing forces—no condensed nucleus, for periods of ages ; contingencies only determining their development ; as, possessing of themselves no developing power, they must be attached to some sister fragment possessing sufficient self-developing force to condense, to develop, this cometary matter. Such fragments, in the course of their revolutions, are liable to come in contact with more developed fragments ; in which case, being similar matter—of the same form, they invariably attach themselves to them ; thus securing to themselves permanent benefit ; and to the others, permanent disaster. Such contingencies as this, delay the development of the positive element by asteroids. This is nature's established method of instituting disorganization of universes.

Fragmentary forms rapidly developing by each other's disturbing influence, planetary conditions are developed by the most advanced of these, and consequent ponderability sufficient to balance that of the corresponding form, as remarked.

The developing forces of these fragmentary forms, are also the destructive forces to them ; the same forces which determine their speedy development, determine, also, their constant liability to disaster. Their orbits cutting each other at all angles, frequent contact of fragments ensues ; this contact is the contact of planets, of comets, of comets with planets ; in either case, it is destruction to the developed conditions of both, or either form. Utter confusion results ; the commingling of diverse, though affinitized matter—diverse, as being developed and undeveloped, planetary and cometary, affinitized as belonging to the same original form—the concussion consequent upon the contact, institutes disorganization, for the time being, to both forms.

The two constitute a new form ; therefore, new forces are developed by it, as rotary and orbital motion. Consequent disturbance results to contiguous fragments ; to the entire system of fragments. In all cases, a sufficient number of such contacts will occur in a system of asteroids, to delay the development of the positive element beyond the period of its development by its corresponding sun ; while in all cases, that system will develop ponderability to balance that of the corresponding sun. This is nature's order ; order instituted by law. The prior evolution of the positive element by the balancing form, is not the immediate institution of disorganization of a universe, as before stated. The positive element evolved by the one form, the consequent loss of ponderable substance to that form, is balanced by a corresponding loss by the asteroidal system, arising from the evolution of spiritual spherulic matter, so termed ; (that constituting the foundation formations of a spiritual planetary plane,) and other spiritual substance by this system. The system being less developed than the balancing form, though it develops less spiritual substance than that, develops a grosser form of it ; which involves a greater loss of ponderability to a system than the evolution of the higher grades. Thus, this loss of low spiritual substance by this system, undeveloped as to the higher, the more numerous forms evolving spiritual substance, balances the loss by the other, of all the higher, more numerous forms of spiritual matter, until contingencies, disasters, in this system shall cause such disorganization, such derangement of developed forces of the system, that not sufficient spiritual substance shall be developed by it to keep up the balance of the two forms, as heretofore. This condition accruing, disorganization is at once instituted.

Being instituted, the first effect is derangement of electric conditions of the universe ; slight at first, increasing as the balance trembles preparatory to the final overthrow. At-

mospheric stagnation, decay of the race of man, the animal species, and of vegetation, first ensue. The process is at first so gradual that centuries intervene between the first institution of disorganization, and the final destruction of systems; a period which seems like the hush of twilight after the busy day is done; a period wherein nature seems gradually sinking into repose; quieting herself for a night of sleep. Man passes away; reproductive forces die; the spiritual sphere receives the last remnants of the race. The lower forms of nature, as the animal, the vegetable, follow in the wake of man. As the lowest of these are gradually disappearing, the catastrophe occurs; the trembling balance has swayed to and fro until the final atom is extracted from the disturbing body of the universe, when the weight falls. Instant destruction to all universal forms is the result; suns, planets, comets, whirl promiscuously through space; governed by no regulated law, no protecting central force. It is, emphatically, "the wreck of matter, and the crash of worlds;" emphatically, fire, flame, "a melting of the elements with fervent heat." Matter retrogrades, determines back to its primeval condition, being dissolved—decomposed by the withdrawal of regulated attractive forces from it; by the extinction of law, order, in the universe, so to speak. To the unlearned in nature's mysteries, it is the withdrawing of the supporting, the developing, the protecting hand of God; while to the wise student of nature, it is that hand extended in love and mercy still. Disruption is method, disorganization, law; universal confusion, nature's perfect order, God's established method of continuing the processes of development, of re-invigorating matter.

The present universe having developed the six orders of suns, the seven grades of matter, and the race of man, although it is now developing its sixth formation, is yet upon the verge of decay. The contingency has occurred which shall determine disorganization of it. However, ages,

as man counts time, may pass before disorganization shall commence; before the atom shall be lost which shall determine this; the period is dependent upon still pending contingencies; as disasters in the asteroidal system, now a balancing form to its corresponding sun.

The law of development of universes is, the twelve formations, the six orders of suns, the seven grades of matter, and the development of man by all these twelve formations. However, developing forces progress; each successive stimulation of motion, is institution of a higher grade of motion; each successive re-awakening of action in universal matter by the agency of Deific Electric Force, is the re-awakening of more developed action. At the institution of a compound cycle of action, the awakening of action, is the re-awakening, the re-establishment, of less developed action than that instituted at the beginning of the last period of the previous cycle of action. Still it is progression; it being a more developed action than that instituted at the beginning of the previous compound cycle. Universal matter has progressed through several grades since the institution of the previous compound cycle, and consequently, action has proportionately developed. Decomposition of matter only through one period of a cycle, not being its entire decomposition, the effect is, that the re-awakening at each successive morning of a cycle, is like the re-awakening of matter to renewed action after a night of rest; the simple re-invigoration acquired by rest; while its re-awakening after a compound cycle of inaction—its perfect decomposition, is like the re-awakening of matter after a winter of rest; the re-instatement of activity in the spring time, when death is succeeded by life, decay by growth. As a morning of summer witnesses the continuation of growth which was partially suspended during the night—a more rapid growth of vegetation than the first morning of spring witnesses, when the icy chains of winter are scarcely broken,

and the balmy breezes of spring have scarcely commenced to blow—so is a re-instatement of action after a short period of repose, the re-instatement of more developed action than that at the commencement of the compound cycle when the winter is scarcely passed, the spring scarcely introduced. However, as each successive introduction of spring upon Earth witnesses a slightly improved condition of soil incident upon the progress of all matter upon the planet, the planet being yet immature, so does the successive introduction of each succeeding compound cycle witness a slightly improved electric condition of universal matter.

Cycles progress; more is accomplished during each successive cycle, than was during the last. Cycles shorten; the same amount of work being accomplished by developed forces in a shorter period. Periods, or days of a cycle—eternities, so called, progress; the corresponding periods of each successive cycle witnessing a universe farther developed than the preceding. Thus, as cycles advance, eternities succeed each other, the universe will progress; the period will be reached when a perfected universe will be developed by a period of a cycle.

The universe has developed the seven grades of matter, the six orders of suns, and man; is developing its sixth formation. As the reader already understands, the later developed orders are the higher, the later developed grades, the higher. The first order of suns of the first formation, is, next to the central sun, of the rarest matter in the universe. These suns, although the parents of perfected planets, are yet cometary; so rare is their substance, that condensation has not yet effected their surface solidification. Volatile, they are of the consistence of heated mercury. The twelfth, or central formation, being of the rarest matter in the universe, is so nearly in the same state of condensation, that it may be said to be of the same consistence. The first order

of the second formation, of more condensed matter than the same order of the first, are still nearly in the same state of condensation, having been subsequently evolved; this order of the third, fourth, and fifth formations, are less condensed, being subsequent formations; their consistency is that of boiling mercury—slightly more condensed than condensed vapor; while those of the same order of the sixth, are vapory.

Priority of time of evolution determines the present more advanced condition of the higher orders of the first, than of the later formations. The planetary condition has been reached by five orders of the first, second, third, and fourth formations; and in four of the fifth. The sixth formation has developed no planets; the forms of that formation being yet cometary.

The subject of universal development, the laws and principles instituting and governing this development, have been discussed. The further treatment of the subject will necessitate the introduction of specified forms; a particular description of the method of development of specified forms. The law of development is one; the development of the universal system is a type of the development of all systems; however, a more correct understanding of this law, of its action in all cases, is conveyed to the mind by its application to the development of a specified system. Universal development, signifies all development; the law of development, signifies the law of all development. The law of development of a sun, of a system, is that of mind; the method of development of matter—physical universes, is that of spirit—of spiritual universes. However, as law exhibits itself as higher, and still higher law; as method progresses, so to speak, it becomes a necessity to define the law as it is exhibited by the various methods instituted. Not only to define the law of development of primeval matter, of suns—the grosser forms, but, also that of the higher forms of the physical universe;

and the law exhibited by the developed method, that of development of spirit; the lower and higher forms of spirit. Variety is nature's method, as mind comprehends; and it is by the study of this variety, that it first learns to comprehend the universality of the one law; and the wisdom of the plan that instituted variety in unity, unity in variety.

CHAPTER III.

THE SOLAR SYSTEM.

THE discussion of the law and method of development of the solar system will be a fuller, more explicit exposition of the law of universal development, as enunciated in the foregoing pages. A description of the development of one system, is a description of that of all systems; therefore, when the minute solar system is selected as the specified form whose development is to be particularly treated, it will be perfectly understood, that laws and methods demonstrated, as of this system, apply to the universal system, all the vast, the minute systems composing that system; but qualified to suit circumstances of that system, as size, grade of forces, &c. The solar system can be scanned, its laws demonstrated by observation; man can study its construction, the method of Deity in the establishment of its center, its various formations, and the distribution of its forms, both with respect to position and size; can weigh the planets, as in a balance, measure the proportionate distances of these from the sun, and from each other; can demonstrate the power of attractive force of each form upon every other; and by thus demonstrating this system, can proportionately demonstrate all systems; the great universal system, of which this is but a grain of sand upon the ocean bed.

The solar system—whence its origin? To what formation does it belong, to what order, and to what grade of matter? Sun, which properly signifies, in this connection, the entire sphere containing the central body and the system of planets, is of the fifth formation; it is of the third order, and

consequently, of the fourth grade of matter. The sun evolving this sun, was evolved directly by a sun of the fifth formation—one of the millions of that formation evolved directly by the central sun. Consequently, it is the fourth from the central, which determines its grade of matter; the third from the parent sun of the fifth formation, which determines its order. The direct evolutions of this sun of the fifth formation are hundreds of thousands; the direct evolutions of these, thousands; consequently, the solar system is sister to thousands of systems which are direct evolutions of its own parent sun; kindred to hundreds of thousands, direct evolutions of its grand parent; kindred to many millions of suns and planets, the evolutions of these.

The situation of the solar system in space, as is demonstrated by observation, is in the *via lactea*. This galaxy of suns, visible to the naked eye as nebulous matter, to telescopic vision as stars, is the system of suns evolved by the parent and grand parent of the solar system. "Scattered like dust over the floor of heaven," of uncounted millions, they present to the human vision, the human understanding, all of the universe occupied by these evolutions. A vast universe of itself, this space, yet how minute a speck in the vast ocean of infinity! How minute a portion of the vast universe of which it is but a section of a system!

Telescopic vision pierces through cavities, so to speak, in this system, and observes *via lacteas* beyond; *nebulæ*, both resolvable and irresolvable, are visible in various parts of the heavens, disconnected with the *via lactea*. This second stratum of suns, visible through the dark unoccupied spaces of the milky way, and as *nebulæ* in various other parts of the heavens, are sections of the vast encircling system—the fifth formation. Science has wrought wonders in perfecting telescopic instruments to that degree, that suns of the first order can be presented to the human vision. Such vast distances as can not be comprehended by human understanding, are

annihilated by the power of that understanding ! Such vast forms as can not be comprehended by human understanding, are presented to that understanding as monuments of Deific Formative Energy and Power.

The method of evolution of suns has been fully described ; therefore, it will be unnecessary to repeat it in enunciating the particulars of the institution of the solar system ; however, enough will be repeated to convey to the mind a clear conception of the constitution of that system—the method of evolution of its central body and other formations. The solar system is a form—a sphere, whose dimensions are commensurate with the sphere of its attractive force ; whose sphere of attractive influence is commensurate with the space allowed it in the system to which it belongs, by the interposing spheres of that system, according to the law regulating the extension of spheres of attractive force, and attractive influence. The sphere of attractive force, as has been previously explained, is a propagated sphere of matter ; as is also the sphere of attractive influence. The sphere of attractive force of the solar system, is to the central body of that system, in a sense, like an atmosphere surrounding a planetary body ; is of the body, in a sense, as is an atmosphere ; therefore, that sphere is denominated the sun, or parent of the system. The sphere of attractive influence of the system, corresponds to that rarified stratum of atmospheric elements emanating from the atmosphere proper, which surrounds it. The sphere of attractive force, or sphere, as it will be termed—the actual body of the system, is an actual body ; a form of matter as real as the form of the central, or any other body of the system, though of a different character or grade of matter ; as real now that its evolvable matter has been extracted, as previous to this extraction. This form was evolved from primeval matter of the third grade, being composed, at the period of its evolution, of its present matter and that of all the bodies within it, being primeval matter ;

according to the law of evolution previously enunciated. According to that law, after its evolution from this grade, it was of the fourth grade of primeval matter. Its size at the period of its evolution was its present size; no condensation of primeval matter of any grade accruing from attractive force. Its form, cometary at its first evolution, is still cometary, as the cometary form is always the result of volatility of matter. The evolution of matter of its central body was affected according to the law of the universal sphere already enunciated.

The consistence of this first evolved matter of the form was, previous to its condensation by attractive force, that of rarest appreciable vapory matter; which matter was scattered throughout the whole system in seeking the center; consequently, the system was appreciable as a vast form of rarest vapory matter. This apparent condition, or consistence of the form, was retained for ages, while gradually the outer stratum was evolving the central body, and while attractive force was gradually drawing this matter toward the center. Being rarest matter of the form, its evolution was more gradual than that of any other matter of the form, as well as its condensation by central force. Gradually, however, the apparent consistence of the central portion of the form changed; more dense vapory substance, it appeared; condensation was resulting. At length, the stratum had evolved its evolvable matter; the central body was completed as to its mass. The form of the system seemed then to have contracted.

Untold ages elapsed while this central body was condensing and perfecting to a degree necessary for the formation, the retention, within it, of suns. Cometary, it revolved for these ages, apparently a useless thing; without regular form, or motion, subjected to the disturbing influence of every system with which it came in contact. The period at length arrived when central atoms of new formations were evolved within it;—its procreative function was developed.

Meantime, evolution of matter of the form continued ; rotary motion of it had determined the evolution of matter from the second stratum. Evolution of matter from this stratum had proceeded since long previous to the completion of the mass of the central body—the evolution of the last matter from the outer stratum ; however, it was gradual, and the ages which intervened between the institution of evolution from this stratum, and the development of the procreative function of the central body, only sufficed to prepare matter to become subject to the central power of the new formation, and to the retaining power of the central form.

The law of evolution of formations, varies as the orders develop. The formations evolved by the central body of the universal sphere consisted of millions of forms ; the first order evolves formations, consisting of hundreds of thousands ; the second order, of thousands ; the third order, of one ; this is the gradation. This law of variation will be enunciated in a subsequent connection.

One central atom only, was impregnated by the procreative power of the central body. This center attracted all evolved matter from the evolving stratum to form a sun, which, when completed, should be evolved from the central body by the law of evolution of suns, to occupy that stratum of the form—the second stratum. The central atom of the new formation was a positive and negative atom electrically—like matter to that of the stratum evolving the matter of the formation, according to the law enunciated in the previous section. Previous to the evolution of this sun from the central body, as in the case of the parent form, condensation of its central body had commenced ; therefore, when completion determined its evolution, it escaped from its parent body as rarest appreciable vapory substance ; slightly more condensed, however, than that of the parent form at the period of its evolution, being of a higher grade of matter. The outer form of the system assumed its place as an independent sun—a system ;

as a revolving body, subject to the forces of the parent system, to the opposing forces which were to develop its orbital motion. It was a type of the parent form in every sense; as this was the type of the parent form—the universal form; yet a higher type—a more highly qualified form.

Meantime, condensing forces developing within the central body, it was assuming definite form; however, it was yet a dimly defined form. These forces had so condensed it at the period of the evolution of the first form, that it was then a dimly defined form. The completion of the second form, witnessed it a clearly defined body, in appearance like rare, light colored flame; a comet, whose vast train in perihelion would have twice spanned Earth's visible heavens from horizon to horizon, viewed at the distance of Earth from it. To a dweller upon a planet within the system, at that period, Sun would have appeared like a fixed comet of amazing dimensions, exhibiting phenomena strange, unaccountable, considering it a fixed body. To an accustomed, an instructed observer, within or without the system, it would have appeared in its true character, as a revolving body, possessing orbital motion, subject to the laws governing cometary matter of that rare quality.

The system possessed rotary motion from the period of its first institution, according to the law establishing rotary motion of forms. The rotary motion of the system was that of the central body, according to this law. The period of one revolution of the system—of the central body, is over twenty-five days. The orbital revolution of the system—the central body, is accomplished in slightly over eighteen thousand years.

Sun, or, more appropriately, the solar system, a comparatively minute form of the universe, revolves around its parent sun in a period proportioned to its size, its quality of motion, its order, and the size of the system of which it is a member. The quality of its orbital motion being lower than that of a

higher order, as members of its own system, it will necessarily perform its revolution around its center in a period, as compared with the period of its corresponding formation of its own system, proportioned to the difference in the quality of the motions, subject to the size of the system of which it is a member; or the distance it traverses in performing one revolution. It is a member of the eighth formation of its system; consequently, Mars is its corresponding form within its own system. However vast the period of its orbital revolution may seem in comparison with that of Mars, it is in exact proportion to the difference in the quality of motion of the two forms, subject to the distance which it traverses around its center. It will be remembered that it is sister to thousands of suns composing its own formation; and that it is a member of a system the third from the central sun, the second from one of the amazing suns of the first order of the fifth formation. Its parent body contained within its form, in every stage of completion, the thousands of systems sister to the solar system—of the same formation, at one time; besides the germinal forms of some of the next interior formation; these systems, of the same size within the central body when complete, as after their evolution from that body. Numbers can hardly compute even the diameter of such a sun; and yet the solar system revolves around that sun with but a degree, so to speak, of less developed motion than that of the planet Mars around its central body. This vast period is short in comparison with the periods of outer planets of Sun's parent system.

The thousands of forms of the same formation, all stand in the same relation to the system to which they belong, as the one does—as Mars does to the solar system. This signifies, that their periods are approximately equal, that they approximate in size, that their motions, as the forms of a formation, are regulated by precisely the same laws as those of Mars are; a formation consisting of but one sun. Order

is heaven's law ; every form has its counterbalancing, disturbing, and regulating form ; every formation of a system has the same number of forms, according to the perfect law of development of systems.

The period of completion and evolution of the third form of the system—that evolved by the fourth stratum, to occupy that stratum as the third formation of the system—witnessed the central body condensed to the apparent consistence of red flame. The real consistence of the matter of the body was then vapory,—the semi-dense vapory consistence of condensing cometary matter.

These periods wherein were forming within this central body, sun, these new, infant forms, mentioned as succeeding each other as consecutive events succeed each other, were periods too immense for the human mind to comprehend. The portrayer of nature's laws, nature's action, the chronicler of the events of creation, so to speak, must labor under the difficulty arising from the incapacity of the human intellect in its present state of development to comprehend periods, short in their actual relation to other periods, yet, infinite to human comprehension ; to comprehend forms, small, relative to other forms, yet, infinite in vastness to human intellect ; methods, simple in reality, yet, complex to human intellect. He has, however, but to record events in their proper order of succession, speak of forms relatively, describe methods by accepted terms, leaving mind to comprehend nature as it progresses ; to perceive the reality as it can.

Time—what is it ? An age—what is it ? Periods of ages—what does it signify ? Time—the succession of events ; an age—a long relative period ; periods of ages—a long relative period. Cycles, compound cycles of periods of ages—relative periods. How shall man, an infant in comprehension, untaught in the science of mathematics of the universe, measure time ?

Periods, cycles, compound cycles of periods of ages, elapsed.

while one form was being fitted for evolution by Sun—while this rare body was condensing from one degree, so to speak, to another.

The fourth era of Sun's cometary development was reached prior to the impregnation of the central atom of the first formation. The period occupied in condensing Sun to this stage, though an eternity to human comprehension, was but momentary, compared with that occupied by the central sun in reaching this stage, to that occupied by its progenitor of the fifth formation in reaching this stage.

Periods or eras, shorten. This signifies, in the first sense, that an era of a sun of any order, is a cycle of eras of the next higher order, or a fraction of an era of a lower order. Eras shorten in a second sense, as each successive era is shorter than the preceding, in an increasing ratio, subject to circumstances of number of the era and order of the stage; however, the average ratio is one and a half to one, to one and two thirds to one. The first era of an eternity of action comprises that period wherein a certain amount of action is accomplished toward the completion of the universal system; which amount depends upon the number of the period, as of the whole number of a compound cycle of action. The second, is a period shorter by, approximately, one third; while the sixth is, approximately, one half the length of the fifth. This is the ratio of decrease of length of eras of cycles, cycles, compound cycles of eras, in the second sense. In the first sense they shorten in seven-fold proportion from lower orders to higher, as of suns; from lower grades to higher, as of matter. Thus, an era of the cometary development of the central sun, comprises seven eras of the cometary development of a sun of the first order; not, however, corresponding eras in the perfect sense, but corresponding in a secondary sense, as will appear in the further consideration of this subject in another connection. An era of cometary development of the first order, comprises seven of the second in this secondary sense;

and thus through the succession of orders. Thus with the planetary eras of the suns of these orders ; and thus with the eras of development of the higher orders of planetary matter, as will be enunciated in the discussion of the subject of planetary development.

The fifth era was reached nearly coeval with the evolution of the second formation of the system. The completion of this era, as has been remarked, witnessed this body as a plainly defined body, in appearance like red flame.

The periods, termed periods of evolution of formations, shorten. Each successive interior stratum, of more developed matter than the next outer, evolves its matter more rapidly ; also the more condensed condition of the central body, determines it a more rapidly developing form to infant forms in process of formation within its structure ; its atoms being capable of exerting a greater influence over the atoms of the new form.

Evolution of sun's third formation, that of the fourth and fifth, occurred prior to the consummation of the fifth, and the attainment of its sixth cometary era ; the evolution of the latter formation was nearly coeval with the commencement of this era. The consistence of this body was, at this stage, mercurial. Condensation had developed its substance from the vapory to the rare mercurial condition — that where-in its volatility corresponds to that of boiling mercury. Heat of this matter had been gradually developing until, at this stage, it was heated matter ; not intensely heated, however. To an observer, at this period, Sun would have exhibited the appearance of a fiery mass with a slightly rarified stratum of fiery matter surrounding its more condensed portion ; this slightly rarified stratum, was its atmosphere. Of a consistence but slightly more rarified than the condensed body, it was yet vapory ; gaseous, sulphurous flame, it appeared. The flame-like appearance of the condensed body was induced by the gaseous condition of its substance, which substance was

gross, flame-colored, sulphurous, gaseous matter ; which is the condition of matter of all suns at that stage.

While the ninth formation was in process of developing within its form—after the evolution of the sixth, seventh, and eighth formations—sun attained to the seventh cometary era. The consistence of its substance was then like heated mercury—its volatility corresponded with that of heated mercury. Heat of this matter had developed to intensity ; it was fiery in every sense. Gradually its volatility was decreasing, while its heat was increasing ; it developed its greatest heat as matter during the consummation of this, the seventh era. The eighth era witnessed this matter as mercurial still, though less volatile than at the previous stage. The most intensely heated condition of it was passed as it entered upon this stage ; condensation had developed it to the degree that cold of space could operate slightly upon it ; its atmosphere was a slightly conducting agent of this cold to the surface of the body.

A most important stage was reached ; developing forces could henceforth accomplish more in the period assigned for the consummation of an era than heretofore ; development could progress more rapidly than heretofore. Henceforth, these periods developed more rapidly than they had hitherto.

The epoch of the introduction of the eighth era, is a most important epoch in the development of suns. Matter has become sufficiently condensed for cold to operate upon it. Henceforward, cold accomplishes more toward condensation and development of matter of suns than all other forces combined. Henceforward, cold will accomplish more towards condensation and development of matter of this body than all other forces combined ; consequently, development must henceforth progress with more than two fold speed.

Prior to the commencement of the eighth era, Sun had evolved its last formation. The evolution of its eleventh—

last formation, preceded the attainment of the eighth era by long periods.

Sun has developed the ninth, the tenth, the eleventh, the twelfth cometary eras, and has attained the fifth planetary era. These eras will be particularly described in the chapters treating of Earth's development.

Condensation of the central body of the solar system to its present dimensions, was from a body occupying nearly the two interior strata of the system. This signifies, that at the period of the completion of this body, it filled the system to within a comparatively short distance of the orbit of Earth. The attainment of the twelfth cometary era witnessed its condensation to nearly its present dimensions.

Being a planet like Earth, it possesses a diversified surface of land and water, plain and mountain. Undeveloped yet, as compared with Earth, it is yet like Earth in this respect, like other planets it has evolved. The parent of the planetary system, it is the source of supply to them of elements of life necessary to their subsistence. Of a nature similar to their's, affinized to them as no other body of the universe is, attractive forces of these upon it draw from it electric elements sufficient to supply the source of light and heat to every body of the system; while it is itself the recipient, by the power of the same force, of the more developed electric elements of the planetary bodies of the system, in a proportionate degree to the size of each, to the mass of all. It is the heart of the system—the center of the circulation of the electric fluids of it; from which vast currents of the electric element flow for the use of the system, separating into minor currents as operated upon by the attractive forces of the different planets; and to which flow the united currents from all bodies of the system. The great heart of the system, in the sense that it is the generator of this life-giving element; the generator, in the sense that it attracts a like element from its parent sun, which operating upon its vast mass, a superior

electric element is generated, which is that affinitized to the planets of the system, and adapted to the supply of their developed necessities. It is the positive and negative organ of the system, in that it is the generator of the positive and negative equilibrated forces of the system without which equilibrated forces, the balance of the system could not, for a moment, be maintained. It is the parent of the planets of the system, in that its own procreative force developed them;—it bore them through the period of gestation to that of birth; gave them birth and sent them forth into its sphere as independent forms, subject to its own parental care.

The first development of the parental law within the solar system, was the impregnation of the center of the first form within the form of Sun, the completion of the infant form, its evolution to its own plane of orbital revolution within the system,—the institution of the first formation of the system. The regulator of the forces of the system—the heart, the parent, it is yet a form of the system—a formation; itself developed by parental law. The twelfth formation—according to the former exposition of the law of formations—occupying a central position in the system, it is subject to the forces of the system; dependent upon planetary force for retaining its position as the regulating, central body of the system, and for aid in its development.

This central body of the solar system, this regulating force of it, is a vast mass of ponderable matter, developed from the rarest stratum of the system. It is rarest matter of the system, properly termed. Its density, compared with that of the outer formation, which is second in rarity of the forms of the system, is as five to seven; this proportion holds throughout the system; density of strata, and consequently of forms, increasing, in this ratio, toward the center.

Density, as of a formation, determines, in a degree, the quality of attractive force exercised by that formation over all others of the system. Affinitized forms; this signifies,

in phrase applicable to planetary systems, like matter, as of density, rarity, and electric condition. A system is evolved as a form from its parent sun as like matter; like in quality of density, and electric condition. According to the law of development of systems, this system develops its forms. As infinite are the gradations of matter of this system, as of the universal system; as of the infinite universe; a system, the evolution of a parent system, being a type of that in every sense; all systems evolved by the universal system are types of that in every sense. A sun of the sixth order, comparatively an atom in space, is a perfect type of the central sun of the universe, a form infinite in vastness, to human comprehension; the former being simply the higher development of the several grades of the latter. This principle is the principle of development. Matter is evolved from the ocean of primeval matter at the re-awakening of action in the universe, for development; each grade of the infinite number that are evolved, advances one grade during a period of action. Each grade of evolved matter of a universe is represented in all the six orders, all the forms of each order; in all the seven grades, so termed, of the universe.

Every stratum of the universe is composed of matter of every grade; universal matter being divided into strata by the dissimilarity of matter of a grade; there being, properly speaking, an infinite variety of conditions of matter of each grade; as of density, rarity, and electric condition. Each stratum evolving a formation, consequently, evolves matter of every grade. Every formation being, like the universal system, a stratified system, upon the same principle, evolves formations of every grade from each stratum. By the seven grades of matter of the universe, is signified, the same as the succession of orders—the development of motion of matter from one grade to another, by successive stimulations; they are designated the seven grades, from the order of evolution of matter from its first primeval condition. The several or-

ders, the seven grades, in a developed period of action, will develop the highest, the perfect form ; the form wherein is represented all of the infinite grades of evolved matter of a universe—man. The end of nature's effort—of formative action, is the production of this form ; a form which shall combine in an indestructible organization, these grades.

Sun, the central body of the solar system, the rarest of the system, exercises attractive force over the bodies of the system in proportion to distance, qualified by density and electric condition. This proposition is true of every formation of the system. The outer planets, being most affinitized to sun, as to density and electric condition, are more subject to its attractive force in proportion to distance, than interior ones, which are less affinitized in these. This principle determines the stability of planetary systems. Outer planets being more affinitized to Sun than interior ones, are, by this principle, retained in their orbits at such immense distances from it ; and enjoy a greater proportion of light and heat, in proportion to their distance from it, than the interior planets. This is a wise provision of nature ; as did each receive, simply, in proportion to its distance, of the element productive of these, there would be such a disproportion of these to the actually existing, the necessary proportions, upon the various planets, that the conditions necessary for the support of man would be wanting.

Electric conditions of the various formations of the solar system, differ according to the circumstances of their position in the system.

Position of a formation, with regard to other formations of the system, qualifies the circumstance of degree of density in determining the period necessary for the development of that formation to the planetary condition. Formations are developing agencies to each other. Sun, the first evolved formation of the system, although situated in a stratum of suns, developing agents to it, was, for long periods, alone, as

a formation of the system ; and consequently, during this period, its progress was proportionately slow. The outer formation of the system, in a sense, was alone for long periods, there being no sister formations revolving in its vicinity to act as aids to it ; the distant sun being its only developing agent of the system ; its progress was exceedingly slow in consequence. Besides the circumstances of density and position in the system, other causes exist, operative upon the development of a formation, dependent, however, upon circumstances of position. These are, relative size, distance of the formations from the sun, and distance from each other of the successive formations to the central. The size of a formation, and its distance from another, determine the degree of intensity of its force, as exerted upon this other, subject to the quality of matter of each, as above explained ; while the same circumstances determine the effect of the other upon it.

Sun's distance from outer planets of the system, partially counterbalanced as it is by the near affinity of these bodies to Sun, is yet productive of results which do not accrue to interior planets from their near proximity to it. Orbital motion is slower in proportion as the distance from Sun increases ; as attractive and repulsive forces decrease ; all circumstances, as electric condition and density, being subject to distance ; intensity of light and heat of these planets decreases, in a proportion dependent upon the intensity of the attractive force, as the distance from Sun increases. The law of planetary distances—the proportionate distances of the planets from Sun, and from each other—the same in all systems, is regulated by the depth of strata—the necessities of the system. As harmoniously arranged are the strata and the forms of a system, as are the organs of the human body. The perfect balance of the human body is secured and retained by the perfect adjustment of the organs of that body ; the displacement of one insures disorder, and destroys the balance of the body. Disarrangement of the strata of a system, dis-

placement of its forms, would insure disorder ; would unbalance the system. Size of forms of a system is determined by the quantity of evolvable matter of the strata developing the forms ; this also is regulated by the necessities of the system.

The outer stratum of the solar system is of a depth surpassing that of any other stratum, as already explained. By the law of necessity of the system, this stratum contained more evolvable matter than any other stratum of the system.

Primeval matter, subsequent to disorganization of forms, decomposition of matter, arranges itself in strata ; which strata assume position according to the relative density of the matter composing them. This determines, except in case of the central body, that in the space wherein revolved a formation of a system, there the decomposed matter will arrange itself as a stratum of primeval matter ; according to the perfect law of attractive force and of organization of universes of primeval matter. The central body decomposing, obedient to this law, resumes its place as primeval matter in the outer stratum of a system, it being rarest matter of the system, and repelled from the center by the repulsive force of more dense matter.

Means adapted to ends ;—this is the law of universal action. Universes of unevolved primeval matter, as forms, must balance each other. This necessity is provided for by the depth of outer strata of these. Like matter of such vast quantity extends its sphere of attractive influence coextensive with its own universe, and approximately coextensive with contiguous universes ; thus binding in one the infinite universe. Were outer strata narrow and of rare matter, being of diverse matter, their spheres of attractive influence would so act upon each other, that they would be circumscribed ; it being a law of matter that forces are absorbed by action of diverse forces upon them. Are they dense strata, repulsive action would be developed to counteract attractive, and thus the universal balance be lost.

A universe whose matter is evolved and evolving, whose forms are developing, will extend its sphere of attractive influence sufficiently far to answer this purpose—the retaining of contiguous forms in position, when its most ponderable portion is its central. The balancing formation of a universe is developed as perfecting forces, otherwise the evolution of the great mass of evolvable matter, operate upon contiguous universes to weaken their spheres of attractive influence. This developing at the appropriate time, the qualified sphere of attractive influence of a universe is kept extended to its appropriate limits.

Attractive force is the regulator of matter to the end in view; is the means by which is accomplished the end—the preservation of order of the infinite universe. The attractive force of affinitized matter, and the repulsive force of unaffinitized, in determining the matter of central bodies to outer strata of systems, after decomposition has ensued, is the means by which is accomplished the end;—the means whereby the balance of the universe is retained through periods of rest of matter, and right conditions maintained through these periods, that formative action may result from the re-awakening of action. No universe of the infinite universe, is an isolated body during those vast periods of rest, comprehended within a single night, or compound cycle of repose. Electric currents, transmitted by spheres of attractive influence, pass and repass from one to the other of these forms; thus inducing the grand result—the re-invigoration of matter by the gradual improvement of electric conditions; the final re-establishment of equilibrium of positive and negative forces, which results in the stimulation of motion.

The law of disorganization of universes of organized forms, and of stratification of primeval matter of universes, is the law of disorganization of minor systems, of organized forms, and of stratification of primeval matter of systems. The law of disorganization is, that suns disorganize, their matter determ-

ining back to its primeval condition as stratified primeval substance—its condition prior to the evolution of the forms of the system. As above explained, each formation decomposing, its matter assumes its appropriate place in the system. Further decomposition of this matter causes its determination back to its parent system, where, by the law of affinity, it assumes its appropriate place as stratified substance in the stratum to which it originally belonged. Thus all matter of all suns determines back to the universal system, where it assumes its appropriate place, obedient to the law of affinity—of attractive and repulsive forces of affinitized and unaffinitized matter. Juxtaposition of affinitized forms of the universe, juxtaposition of atoms of affinitized matter of the universe, whether in form or in stratified primeval matter; this is the law.

The period necessary for the determination of matter back to universal stratified primeval matter, its perfect arrangement into strata of the universal system, is according to the length of the supervening period of rest; in other words; according to the quality, so to speak, of the decomposition to ensue during that period. Is it to be complete decomposition—re-absorption of primal elements, the necessary period is, approximately, one half of a compound cycle; is it only partial decomposition, it is only, approximately, one half of a short period. What remains of rest, whether it be a long or short period, is consumed in equilibrating the forces of exhausted nature.

Therefore, as remarked, the outer stratum of the solar system, of necessity, contained more evolvable matter than any other stratum of the system. Other necessity existed for the existence of more evolvable matter in this stratum than in any other—than in all others of the system. Sun must be a preponderating form;—the central body of a system must contain more matter than is contained by all other forms of the system combined. The regulating form of the

system, that which is to retain within its sphere all other forms of the system by virtue of quality of its forces, it must possess the preponderating quantity of matter of the system. Ponderability of Sun—actual massiveness, exceeds that of all other forms of the system combined, although of rarer atomic matter than any of these forms; consequently, of less massiveness in proportion to size than any of these. However, attractive force not being in proportion to ponderability, but to affinity as well—not in proportion to actual quantity of matter of the central body, as compared with that of the forms within its sphere, but to quality of that matter as well, Sun exerts attractive force over all the matter of all the forms, over each separate form, according to its likeness to that matter, to these forms. Ponderability and affinity, therefore, constitute Sun the governing body of the system. All matter of the solar system being like matter—Sun being affinitized to all minor forms of the system, and it being the preponderating body, its ponderability constitutes it the governing form of the system. More affinitized to some forms than to others of the system, affinity constitutes it the governing form of the system in the sense, that remote formations of the system are, by this law of affinity—their greater affinity to Sun than the more near formations, made, if not equally subject to its governing influence, sufficiently subject to it to render their condition favorable for all the purposes of nature upon those formations. This law of affinity determining the proper condition of remote formations, also determines that of near ones. These being unaffinitized, in a degree, to Sun, are less affected by its proximity to them than they would be were they like matter, as are the outer formations; which proximity, in that case, would be destructive, not only to proper conditions upon these formations, but to the formations themselves. It is the repulsive influence exerted by Sun's matter upon these formations, that qualifies attractive force, the law of affinity, which constitutes them

Sun's offspring; which preserves the equilibrium of their orbital motions, and prevents catastrophe by their determination to the center from the force of the above named circumstances.

Distance, as it weakens the power of attractive force of all substance, whether nearly or remotely affinitized, weakens the governing influence of Sun over the formations of the system, in proportion to its increase, on affinitized and unaffinitized formations in proportion to the affinity. Rarity and density of a formation not constituting its only affinitizing quality with Sun, electric condition also constituting an important affinitizing quality, and electric condition of formations not affinitizing with Sun's in exact proportion as does rarity, distance affects the attractive force exerted by Sun upon formations according to their electric condition. The outer formation of the system, of nearest affinity to Sun in respect to rarity of its matter, is also in electric condition of that matter. The second, next affinitized in quality of rarity, is less in quality of electric condition than is the first; and the next interior one, which is still less affinitized in quality of rarity, is still less in electric condition than this.

Electric condition, as of matter of a formation, signifies, quality of matter determined by quality of electric force preponderating in that matter; as positive, or negative. The forms of a system, as has been stated, are positive, and negative, in just proportion to constitute them balancing forms to each other, so that the balance of the system be maintained. Sun, being a negative form, in the sense of electric quality of its matter, is most affinitized to the negative formations of the system, subject to quality of density; also subject to the quality of the negative form. The outer matter of the sphere being negative, inherently, Sun and the outer formations of the system are negative in the sense of being composed of negative matter; while the law of arrangement of formations in a developed sphere, constitutes Sun a positive

and negative form ; the five outer formations negative, the six interior to these, positive. The balance of the system is perfectly preserved by this arrangement of qualities of matter, and qualities of forms. Sun is a positive and negative form inherently, by virtue of its position and its office in the system. Its negative quality of matter affects its quality of electric force dispensed to the system, and constitutes it a better regulator to the system than it would be were it of either of the other two qualities. The preponderating quality of its nearest formations being of diverse quality, it exercises less influence over their condensed matter, than it would were it of their quality. This is necessarily the arrangement of all systems, and necessarily a wise arrangement.

Positive, and corresponding negative organs, balance each other in every form ; although the higher exhibition of the law of development of formations determines that matter of the three electric qualities of strata shall be developed into one form ; which form, from the dual nature of the matter composing it, is termed dual form. The solar system, a type of the universal system, being a form of a high order, exhibits the higher manifestation of this law. Following the universal law of systems, the central form of the system is a positive and negative form ; like the heart in the human system, it is the generating organ of the positive, and negative forces for the use of the system. In the same sense, all forms of systems are positive and negative forms ; all being natural centers to systems. Possessing, of themselves, the power of generating positive, and negative currents, in equal proportion, for the supply of their own individual systems—the needed fluid for distribution to every form of them, in that sense, all forms are positive and negative forms ; however, these are positive, negative, according to the law regulating all systems, this being the proper distribution of both qualities of forms for the purpose of retaining the balance of systems. This regulation, without interfering with the three

qualities of forms, as above described, or their arrangement, only classifies them differently; making two classes of the three, according to quality. As side organs, so termed, of a system, formations are positive, and negative, corresponding to the side organs of the human body; as the limbs, which are positive, and negative, to each other; also the eyes, ears, nasal organs. As vital organs, these formations are positive and negative, positive, negative; corresponding to the vital organs of the human body—the brain, heart, lungs, liver, and spleen, which are positive and negative, positive, negative, organs, in precisely the sense that the formations of the solar system are such.

Let the reader carefully study the above exposition, compare the facts of science, the observed phenomena of the human system, with observed phenomena of the solar system; trace the influence of each organ of the human system upon that system, and upon other organs of the system; trace the influence of each planet upon the whole system, and upon each organ of the system; and thereby ascertain the relative force of each organ of both systems; he will thus discover the truth, that the actual force of formations of the solar system varies, not in proportion to size, to density, to distance, only, but also in proportion to some other, heretofore unobserved influence. By comparing the solar system with the human, classifying the forces of that system as positive and negative, as he will readily classify those of the human, he can but perceive the truth, that electric condition of formations determines, in a degree, their power of attractive force.

All organs of the solar system are dual. The universal system develops six single organs as balancing organs of a formation at its first institution. Systems of the first order, like the universal system, develop single organs, as balancing organs, at the first institution of their formations; two is the number developed by these; systems of the second order, and those of the higher orders, develop no single organs at the

institution of their formations. The necessity for these ceases with the development of the second order, there being, then, such a universal distribution of systems through space to act as balancing and developing agencies to developing systems. Sun, a dual organ, of its parent system, is a positive organ of that system.

Size of formations, determined by the evolvable matter of a stratum, is also determined by the necessities of the system. By the law already stated, outer formations must be small; by this law, also, they must increase in size toward the balancing formation. The sphere of attractive influence of the system would be too expansive were outer formations large; while, were those contiguous to the balancing formation small, disorder would result—disorganization of these, by the superior attractive force of that preponderating formation. Necessity demands, however, that the fourth formation shall be smaller than its contiguous ones—the third and fifth. This necessity exists in consequence of the overpowering influence which would be exerted by the balancing formation upon outer, smaller ones, were this of a size to attract these, to any great extent, within the influence of that formation; there being no counterbalancing outside force to this. Outer formations would lose their positions, were there not a break, so to speak, in the strong attractive sphere of this formation—a check to its overbalancing power. This small formation—the fourth, occupies a peculiar position in the system. Subject to the mighty force exerted upon it by the next interior, and the balancing formation, on the one side, and that of the three outer formations on the other, it is perpetually swayed to and fro by these contending forces while in its cometary condition—swayed from its aphelion to its perihelion, from its perihelion to its aphelion, in zigzag lines, as the various forces operate upon it from either side. Its position is exceedingly favorable for development. From the breadth of the stratum developing it, and of that developing the interior

and outer contiguous formations, it is nearer to the interior than to the outer; it retains its position, notwithstanding the superior force of the two contiguous interior formations, by virtue of electric condition of its matter, which is more nearly affinitized to that of the mass of the outer than to that of the interior; although it belongs to the same division of the sphere as the latter. It is more negative, as compared to the whole mass of the two next interior strata, than positive and negative, the two interior to it comprising the preponderating mass of the positive and negative matter of the system; while the three outer contain but a very small portion, comparatively, of the negative matter of the system, and that of the highest quality—that nearest affinitized to the outer stratum or form of the positive and negative division. Outside influences exerted over this formation, are, therefore, superior to interior ones, in proportion to size of formations.

The fifth formation, being of the negative form of positive and negative matter, corresponds more nearly with the fourth than does the sixth—the balancing formation; it is the link which binds this formation, and with this the three outer, to the balancing formation; which is, itself, the link that binds the two sections of the system together—the outer and inner sections; which binds the outer to the influence of the central body. The ratio of increase of size of formations from the first to the sixth inclusive, were the fourth not an exception to the general law, is an increasing ratio.

The seventh formation nearly balances the fifth in size, however, it is smaller. From the sixth to the eleventh inclusive, the ratio of decrease of size of formations, were the eighth formation not an exception, is an irregular ratio;—an increasing, decreasing, and again increasing ratio. The eighth formation corresponds with the fourth, it being smaller than the next interior one. It serves the same purpose in the system as does the fourth,—as a check upon the powerful influence of the balancing formation. Situated, as it is, between

- the strong attractive influence on either side of it, it is, like the fourth formation, most favorably situated for development. It is retained in its position by the counterbalancing forces upon either side of it, as is the fourth; electric condition of interior and outer formations operating, in its case, as in that of the fourth.

The eleventh formation, the evolution of the interior stratum of the system, is the smallest formation of the system; that stratum containing the least quantity of evolvable matter of any in the system. Necessity of the system requires this to be so. This small formation acts as a check upon the overbalancing power of Sun, as do the fourth, and eighth, upon that of the balancing formation.

The ratio of distance of formations from the central body and from each other, is according to the number of the stratum in which the formation is situated, and as their size compared to each other.

The formations of the solar system, single forms, are arranged in respect to size, distance, and arrangement of formations, as are the formations of the universal system, all systems. Dual form, single forms, as formations they are balanced by quality of electric condition of their matter relative to that of Sun's, of each other, and of contiguous formations of neighboring systems, which act as balancing forces to outer formations of the system.

Electric condition as a balancing agent of formations, of systems—as assistant agent—is as effective in the regulation of motions of formations, in establishing the phenomena of a system, as are distance, size, and density, proportionally. Entirely overlooked by philosophers in the enunciation of the laws governing the solar system, its influence is attributed to quality of density of formations, thereby establishing the error taught by astronomic science of the day, that outer formations are of rarer quality of matter than Sun; that position does not determine rarity or density of a formation.

This error is the originator of others as fatal as this to a just appreciation of the laws that govern the system, that govern all forms, all matter. Proper investigation of the law of electric condition, and the order of stratification of systems as respects this condition of matter, the law of arrangement of formations in correspondence with this, intricate though the law is, will lead to a perfect comprehension of the hitherto, misunderstood, mysterious phenomena of the system.

As above intimated, formations of the universal system, systems of the first and second order, must consist of many forms, in order that perfect balance of a formation, of a system, be maintained; while systems of the higher orders may evolve formations consisting of single forms, and yet the balance of a formation, a system, be maintained. Systems of the third order are the lowest in order that evolve single forms as formations; these being balanced by single forms, by virtue of the universal distribution of systems through space; also by the perfect arrangement of forms of all systems according to the quality of electric condition.

One form being the order of formations in systems of the third order, the matter of one subdivision is only sufficient for one form of a size to answer the purposes of the system. The solar system, from its twelve great subdivisions, evolved twelve forms—the central body and the eleven formations.

Action, stimulated for the generation of the first formation, was, according to the law of generation already enunciated, of the same quality at the generation of each formation;—the degree of motion necessary for the institution of the first formation, sufficed for that of every formation of the system. Rotary motion of Sun—of the solar system, being a propagated motion, propagated by the central atom of Sun, being the revolutionary motion of atoms around the central atom, does not, as already explained, determine the rotary motion of atoms of the system. Rotary motion of atoms of the system, independent of their revolutionary motion around the

center of the system, determines the rotary motion of forms developed by the system, subject to the quality of the stimulated motion, the quality of electric condition of the central atom of each form. Sun's rotary motion was determined by the quality of electric condition of its matter, subject to the quality of the central atom of the system, and the quality of the stimulated motion which instituted the system. The interior stratum of the system was of positive—of lower electric quality, than the next outer division ; however, being in quality of density the highest matter of the system, its quality of electric condition was qualified to the degree, that it was, at the period of the institution of the system, the highest quality of matter of it. Atomic motion of all atoms composing the solar system, at the period of the institution of the system—the period of their determination to it, was exceedingly undeveloped. That of the most dense atoms was most developed ; yet it was of the same quality as of all atoms of the system, in the sense, that electric quality of the central atom, and quality of motion of all other atoms of the form, were similar. Stimulation of motion which instituted the system, was stimulation of rotary motion of the central atom, and all other atoms of the system ; these all assimilating in quality of electric condition. The outer stratum evolving its matter, although of rarest quality, nearly contemporaneously with the evolution of the central atom, affinizes more nearly with that than any other atom of the sphere, being evolved matter ; whereas, all other is unevolved. This contemporaneous evolution of a central atom from an interior stratum of a sphere, and matter of corresponding quality of motion of an outer stratum, is termed the evolution of a grade, in consequence of the closer affinity existing between atoms of evolved matter, although of different degrees of density, than between atoms of evolved and unevolved ; although assimilating in degree of density. All forms of all systems being evolved by the same law, and in the same

manner, the reader will perceive the correspondence between the method of evolution of a central body, or a system, and the several forms of that system. The quality of rotary motion of atoms of a form outside the central atom, only qualifies that of the form, in the sense, that it being evolved matter, its electric condition, or quality of circulation of its electric fluids, qualifies it to accumulate around an evolved atom, and thus constitute that atom the center of a form.

The degree of development of motion which instituted the system, was low, compared with that instituted by the after stimulation of motion of atoms of the already constituted system. Sun's rotary motion, therefore, is a less developed one than that of any of the formations of the system.

Motion is a developing agent ; this is the foundation principle of the true theory of development. Motion of the system—its revolutionary motion, by the law of revolution of forms, induced more rapid development of atomic motion of atoms of outer strata than of inner ;—the more rapid motion of the outer sections of the system, induced evolution of matter of this section, although of rarest quality of the system, first ; immense periods before this motion had thus affected matter of interior strata. Superiority in degree of motion, of outer strata, as compared with inner, induced by the more rapid motion of the outer sections of the sphere as it revolved, determined the outer planets to be the first evolved ; determined the evolution of central atoms of these from interior strata—interior to these, yet outer to the most condensed interior stratum.

As has been stated, the central atom of the first formation of a system,—an atom sufficiently perfected in quality of density to become a central atom, is evolved by a stratum situated within the (then) uncondensed central body, where the retaining forces of that body are sufficiently developed to retain it as a central atom, or to retain a formation. This stratum is the interior stratum corresponding in relative

quality of electric condition with the outer formation; it is the tenth stratum. This stratum evolves the central atoms of the four outer formations.

The central atoms of the four outer formations of the system being qualified atoms in regard to density—possessing a high quality of rotary motion at the period of the institution of the system, when evolved, possessed a higher quality of rotary motion than the central atom of the system, from the quality of the stimulation inducing it, and from electric condition; also a higher quality than atoms evolved from more interior strata whose electric condition determined their motion to be slower. Of higher quality of electric condition, but rarer, than matter of more interior strata, they possessed, by virtue of this quality of electric condition, more developed rotary motion than those evolved by more interior strata. Thus, electric condition counterbalances density, in a degree.

Matter of a stratum of whatever quality, being of the three qualities, central atoms evolved by a stratum are not, necessarily, of the three qualities. Strata evolve central atoms according to position of qualities; revolutionary motion affecting the earlier evolution of atoms of subdivisions farther removed from the center, subject to electric quality, and quality of density. Thus: The tenth stratum first evolved central atoms from its positive and negative division, which is situated interior to its positive, from which it last evolved central atoms; while it evolved no atoms from its negative division which served as central atoms. The eleventh, evolved one from its positive, or outer division, none from its positive and negative, and three from its negative; while the twelfth, evolved successively from its positive and negative, its positive, and its negative.

Quality of rotary motion of the four outer formations of the solar system is diverse, as atoms of, approximately the same quality, were diverse—possessed diversity of rotary motion. The reader comprehends, from the previous discus-

sion of this subject, that atoms of a quality are graded, are diverse atoms ; therefore, further explanation is unnecessary. Central atoms of the four intermediate formations also possessing diversity of rotary motion, the forms possess diversity of this motion. Greater diversity of rotary motion exists of these four formations than of the four outer, or of the three interior ones, exclusive of the central body. This results from the fact, that the central atom of the eighth formation was derived from a lower quality of matter than those of the three others ; this quality being the negative quality of the negative quality. Rotary motion of the three interior formations of the system is but slightly diverse, from the fact, that, although derived from different qualities, these qualities assimilated so nearly, that central atoms evolved from them were nearly like atoms.

The outer formation of the solar system, being of rarest matter of the formations of the system, save the central, retained the cometary condition long periods, while were developing the more interior, denser formations. Small in size, compared with the six next interior formations, it developed from the eleven strata of its sphere, one formation.

The law of evolution of formations is, that according to size, order, and position, do systems evolve formations. While the law is, six orders, seven grades of matter, the law also is, that the just wants of the universe be supplied ; the necessities of systems be answered. All forms of the several formations of the universal system, which signifies forms of the first order of that system, being vast forms, evolve their eleven formations ; also those of the second and third orders, being large, evolve the eleven formations ; while of the forms of the fourth, some evolve the eleven formations, while others do not. Those of large size, evolutions of the more vast suns of the third order, all evolve the eleven formations ; while those of small size, comparatively, those situated in, comparatively,

narrow strata, evolve a less number ; the smallest, none. This arrangement perfectly answers the necessities of a system, and of the universe. From the beginning, the order was, just arrangement, proper distribution of forms with respect to size, distance, and electric condition, that perfect balance of the whole be maintained ; all law was made subservient to this order. A small form, from its eleven strata, evolves a single formation ; as a single stratum evolves a single form from its twelve minor subdivisions ; as a single stratum evolves separate forms from each minor subdivision. It is the operation of the same law, matter evolving in the same order ; but being higher matter, in smaller space, it can accumulate for the building up of one form as readily as the matter of a stratum of the universal system can accumulate for the building up of its millions of forms ; as the matter of the eleven strata of that system can accumulate for the building up of its accumulated millions of forms. A system of the fourth order of the size to develop but one form, is but as a narrow stratum of a large system, a minute subdivision of a stratum of a still larger one ; therefore, it will be easily comprehended that the law of distance and of stratification, determines the evolution of but one form by such a system. Depth of strata and position in the system, determine the number of formations of the larger forms of the higher orders. Necessity of a system determining the number and position of formations, law determines that the actual depth of a stratum in which a form is situated shall determine the number of its formations. The law of density, of attractive and repulsive forces, is the law operative. Depth of strata determines the amount of developing force brought to bear upon a system—the amount of attractive and repulsive force exerted upon it by contiguous systems ; while degree of density determines the susceptibility of the evolvable matter of a system to these forces. Inner strata, as the balancing and contiguous strata, of systems of high orders, being narrow, and of dense matter, attractive

and repulsive forces of contiguous systems act upon the evolvable matter of a formation of such a stratum to develop it in forms, according to the breadth of the stratum, and the size of the form. Formations of such strata evolving the eleven, or a less number of formations, evolve them in defiance of the regular law of evolution of formations. Forces, in such strata, are so condensed that matter of systems of the strata can not evolve in regular order of strata as in larger systems. No system of the size of the solar, evolves its secondaries by the perfect law of evolution of formations; forces in such systems being too condensed.

Those systems of the fifth order which are the evolutions of large suns, evolve the eleven formations according to the regular order. The law of arrangement—of proper distribution of forms, of diminution of size as orders develop, determines the sixth to be the highest order of the universe. It is only the largest forms of the fifth order which evolve the sixth, as the balancing, and neighboring formations of the largest systems of that order; while the great majority of suns of that order, and many of the fourth, do not evolve it. The solar system being an evolution of a comparatively small sun, has not evolved the sixth order; some of its formations have not evolved the fifth.

The law of generation is, that all forms evolve all the formations to be evolved by them, prior to the eighth cometary era,—the era when cold operates upon the matter of forms to condense it. A sun evolving a single form, evolves it at a period intermediate between the period of the perfect development of its procreative force, and that which closes its bearing period. This is between the fifth and sixth eras.

Condensing forces, operative upon the first formation during the ages while were being evolved the interior formations, qualified it to that degree that when the eleventh formation was evolved, it had reached the lava stage—the eleventh cometary era.

Eras shorten in a seven-fold ratio. This proposition needs, in this connection, a more particular explanation, in order to enable the reader to rightly comprehend the relative length of the periods wherein the bodies of the solar system were developing through their several stages to the planetary condition.

An era of Sun's cometary development corresponding to seven of one of its formations, is an indefinite period, evidently ; as no two formations develop through a single era in the same period.

Sun evolved its first formation during its fourth era, during a certain subdivision of that era ; it evolved its last formation during its seventh ; a certain subdivision of that era. During the period intervening between the evolution of the first formation and the last, the first had attained the lava stage, or eleventh era ; therefore, it is evident, that an era of sun, as here denoted, (the subdivisions of the cometary stage deemed most marked, and, therefore, most convenient for elucidating the process of development of a body through this condition,) is not seven times the length of a corresponding one of its first formation ; but is seven times the length of an era of that formation corresponding to this in a secondary sense. Stimulations appreciable by Sun are subdivided into grades, each grade appreciable more or less distinctly by its several formations, according to their grade of density. A cometary era of the first formation was one seventh the length of a subdivision of a cometary era of Sun ; although not one seventh the length of a corresponding era, as above explained. Thus the cometary eras of all the other formations correspond to the subdivisions of Sun's cometary eras in the same ratio ; according to the principle, that higher grades of stimulation are appreciable by higher grades of matter ; and vice versa.

Seven is nature's number. A grade of matter evolving a higher grade, stimulates that higher grade by the law of pa-

rental stimulation, appreciably, seven times as often as it is itself stimulated, only in the sense, that the grade of stimulation being higher, it is more appreciable by a higher grade of matter. All electric action is appreciable by all matter, in a degree; but by grades of matter, in degrees corresponding to the affinity existing between the matter and the electric fluid operative upon it to produce stimulation. Every seventh stimulation of the same grade of matter is more distinctly appreciable by that grade, than are the intervening ones, from the method of nature's action,—her subdivision of periods into periods of action and rest. Every seventh stimulation, by this method, is a corresponding stimulation; and as eras are arranged, the stimulation which ushers in an era succeeding an inactive period, is more distinctly appreciable than those which occur during an active period; though these may be of the same grade, so termed.

The grade of condensation of interior forms being higher than that of outer, this ratio is a more complicated ratio, in its truest sense; yet, it is still a seven fold ratio; as the minor subdivisions of eras of these more condensed bodies correspond with the larger subdivisions of the more rare ones; therefore, it is appropriate to term the ratio a seven fold ratio, as between Sun and all its formations. Phenomena characterizing the epochs of an era of Sun, characterize the corresponding epochs marking the seven eras of the formation; an epoch, so termed, in an era of Sun, being the ushering in, or closing, of an era of the formations. Correspondence between an era of Sun, as here denoted, and a corresponding era of its various formations, varies, as the formations are more or less condensed. Greater density of matter of a formation constituting it of higher quality from its first institution, its eras are shorter than the corresponding eras of more rare formations. There is an exact ratio of increase and decrease, of length of eras of the formations of the solar system, which

will not here be stated ; as it is not necessary for the purposes of this exposition.

The process of development of this formation was slow, comparatively ; it being an outer formation, and possessing fewer developing agencies than the more interior ones. It was outstripped by the four next interior formations. It is now in its seventh planetary era. Its one formation is still in an undeveloped condition ; the law determining this will hereafter be stated.

The second formation had attained the first planetary era, prior to the evolution of the eleventh formation of the system.

The planetary eras are twelve, corresponding to the twelve cometary eras. The first, is the period wherein surface matter, just solidified, is preparing itself to develop forms. This era is also termed the volcanic stage. Planetary surfaces, during this stage, are perpetually upheaving, melting away, by force of internal heat ; cooling by force of external cold, and again melting by force of internal heat ; it is a strife of elements. During this era, volcanic action combined with the influence of external elements, develops the lowest species of crystalline rock. The ages of this era only suffice for the development of this species of rock. The other planetary eras will not here be defined.

The second formation, larger than the first, evolved six formations. This formation has arrived at a higher stage than the first ; it has attained the ninth planetary era.

The third formation—Neptune, at the period of the evolution of the eleventh, had attained the second planetary era ; it is, therefore, in a higher state of development than the second ; it is approaching the eleventh planetary era. It has evolved nine formations ; which, from circumstances of size of the solar system—depth of the stratum developing the formation, were irregularly developed. The disproportion-

tion in number of formations between this and the second, is the disproportion in size of the formations; the stratum in which each is situated being of a breadth to justify the number of formations of the latter—space sufficient for their irregular development existing by virtue of the breadth of these strata. The existing condition of the formations of this, and the second formation; is low.

The fourth formation—Uranus, at the period of the evolution of the eleventh, had attained the first planetary era. Favorably situated, priority of period of evolution of the second and third determining them to be further advanced at this period than was the fourth, was overbalanced by advantage of position, and superiority of density of this. It has outstripped them—is in its twelfth planetary era. It may be termed a perfected planet. Its formations are six; which, from circumstance of position of the formation, exhibit phenomena unknown in systems of larger size. Their orbits are perpendicular to the plane of motion of the parent body; while their motion in these orbits, though not retrograde, is in such direction relative to the plane of motion of the parent body, that it is, in a sense, retrograde motion. The original impulse—that which impelled the forms from the parent forms, decided their direction of motion until outside force—attractive force of some overbalancing form, changed this original direction of motion. At the period of the evolution of Uranus' first formation, the position of Neptune, relative to Uranus, was such, that the orbit of the infant formation was fixed in a plane perpendicular to the plane of its parent's motion. In large systems, or in more interior strata of systems of the same size as the solar, such contingencies can not occur; as, where room is given for the proper development of a formation, the original impulse will be obeyed,—the direction of motion will be easterly, or in, or near the plane of the planet's motion; and, in interior strata of small sys-

tems, where counterbalancing forces are abundant, the original impulse will be likely to be obeyed. However, instances are common in the universe, where the satellites of formations corresponding to Saturn, Jupiter, and the more interior formations, revolve in orbits corresponding to those of Uranus' satellite.

Retrograde motion, as of a sun, properly signifies a westerly motion, imparted as an impulse at the period of the evolution, or birth of the sun, instead of an easterly one. Nature has no retrograde motions, in this sense; however, practically, she has motions that are retrograde in the sense of being westerly motion; as the instances above enumerated, where the orbital motion of bodies is fixed as westerly motion, by circumstances of position of surrounding formations. Proximity of the orbits of Uranus and Neptune determined, that, at the epochs of their conjunctions when they were cometary forms, they should join spheres for a long period; this was the circumstance which determined the situation of the orbit of the first formation of Uranus, and with the first, that of all the others. This formation being attracted to a position in its parent's sphere by the powerful influence of the neighboring formation, was retained in that relative position—its orbit became fixed in that relative position, by the periodic return of Neptune to the immediate neighborhood of the parent system, for the ages while the other formations of Uranus were being evolved, and assuming appropriate positions, relative to the position of the first, and of each other. Its spherical matter affinitizing with spherical matter of the parent system, it drew to the plane of its orbit a plane of affinitized spherical matter, which acted to retain it in its accustomed orbit, when the neighboring formation had become disengaged from the parent system,—when the powerful force hitherto holding it in that position was removed; to retain it until that force was restored. The constant tendency of the formation was to seek its proper path, when free from the

attractive force of Neptune; yet, the periodic return of this formation to nearly the same position which it occupied at the evolution of the formation, for the ages while this body was evolving its other formations, irrevocably fixed the path of the formation. Attractive force of this formation decided the orbits of those subsequently evolved, as that of Neptune had decided that of this.

It is appropriate to add, in this connection, that spherul matter of a parent system always acts in aid of attractive and repulsive forces in fixing the situation of orbits of formations; in determining the direction of their perfected orbital motion. As a force, however, it is subject to attractive and repulsive forces. It is by this law, that all formations of a system of appropriate size revolve in nearly the same plane,—the plane of the equator of the parent body. The highest quality of currents of spherul matter rotate in that plane; therefore, the tendency of every formation of the system is to rotate in that plane; this quality of spherul matter affinizing more nearly with the spherul matter of the formations of the system than that of other sections of the sphere. It is only when unwonted forces are brought to bear upon a formation, that it leaves that plane; and it is only when circumstances like those above mentioned as surrounding Uranus' outer formation in its infancy, surround a formation, that the plane of its motion can be fixed perpendicular to that of the parent's; or, that its orbital motion can be retrograde, so termed.

The fifth formation—Saturn, at the period of the evolution of the eleventh, had attained to the tenth cometary era, or heated sulphur stage. Situated in proximity to the balancing formation on the one side, the third and fourth being near disturbing agents upon the other, it was most favorably situated for development. Although evolved at a period so remote from that of the evolution of the first formation, at this period it had nearly overtaken the first; it has far out-

stripped it. It is in its twelfth planetary era—the highest; the era, during which, is completed the perfecting of the planetary surface. Surface condition of it is qualified to that degree that oceans have disappeared, seas assuming their places; rugged mountain ranges have disappeared to that degree that rocky ridges, properly termed, only, exist as mineral beds for the supply of the necessary mineral substances, as atmospheric elements, which mountain ranges supply. Deserts, barren wastes, as steppes, pampas, have nearly disappeared from the planet. Animal and vegetable species, and man, have arrived at a stage of development unattained upon any other planet of the solar system. Having outstripped its competitors in the progressive race; standing as it does at the head of the formations of the system in respect to conditions, it stands as a monument of the unerring wisdom of the Divine Method; the unerring action of nature's laws. Perfect development of planetary surfaces, approximate perfect development of the animal and vegetable species, and man, signifies what man upon Earth does not yet comprehend. Living in, comparatively, an early era, with unfavorable conditions and circumstances perpetually surrounding him, he conceives not the idea of perfect development of the race of man; his is the highest condition he can comprehend. Let him carefully study the laws which determine the gradual perfecting of a formation from the rare cometary condition to the first planetary era; from this to that already reached by Earth; thence, by the same law, he can trace it to the perfected condition—that which determines a planet to be habitable in all latitudes, and over a great proportion of its surface; and all its productions, as animal, vegetable, mineral, to be favorable to the existence of a perfect race of men. As Saturn is, so the other formations must be; does the instituted universe of forms long enough exist. As planets of the higher orders developed by the first formations of the universal system, are, in degree of development, so Saturn

must be ; so all formations must be, does this universe long enough exist. The law determining planetary development is one law, the end is one.

The fifth formation has evolved the eleven formations. Eight are spheroids, while three are condensed strata of evolved substance.

The method of evolution of matter of this minor system—the comparative size of its successive formations from the outer, the stratification of evolved matter in the strata evolving it, anomalous though these circumstances appear, exhibit the imperfect action of the law already delineated—the law determining interior, narrow strata to be favorable to the evolution of few forms by the formation situated within it, and these few to be developed irregularly. In homely phrase, Saturn attempted more than it could accomplish ; it sought to rival older and larger formations in the number of its own. Evolving its eight outer formations, it evolved them in defiance of the regular law of evolution of formations, as a necessity of its position. Its second outer formation is its largest—its balancing formation. No one of its eight formations are of appropriate size relative to position. This irregularity occurs in consequence of premature evolution of matter of all strata of the Saturnian system. Outer forms are too large, and interior ones too small, from the fact that matter, properly belonging to interior forms—evolved from interior strata, determined to outer forms before central atoms of interior forms were evolved. Stratification of matter of interior strata occurred as a consequence of the rapidly condensing forces of the system ; condensation of this matter commencing in the strata evolving it, before central atoms were evolved to which it could determine ; even before it could obey the attractive force of already existing centers—of forms in process of completion in the parent body.

Condensation once commencing, no power exerted by a central atom of a distant stratum could affect this matter in

the slightest degree, to cause it to determine toward a center. It determined to the equatorial current of the sphere, or stratum evolving it, and thus condensed in rings encircling the central body parallel with its equator. Condensation and stratification of the first stratum of this evolved matter—the first section of the stratum, determined the condensation and stratification of all matter to be evolved in future from more interior strata. Interior strata of the system were narrow, bringing evolved matter of the different strata in close proximity; condensing forces exerted by the first stratum of condensed substance, caused condensation of substance as fast as it was evolved from interior sections. The exterior stratified ring, so termed, condensed in three concentric rings, corresponding to the three qualities of matter of the stratum. The interior visible ring is, in reality, two stratified rings, so termed, and is composed of the matter of the tenth and eleventh strata, condensed into six concentric rings, corresponding to the three qualities of matter of the two strata.

These novel formations instinctively obeyed the laws of the system. Repulsive force of the parent body developed their orbital motion—the rotary motion of the rings. Destitute of a central atom to propagate a rotary motion distinct from that of the system, atoms of these revolved as independent atoms, subject to the influence of currents of affinized and unaffinized matter, until, becoming fixed by solidification, they ceased, as atoms, to possess independent rotary motion. This matter becoming fixed in stratified rings around the central body, the influence of propagated motion of that body was to develop a rotary motion of these, corresponding with that of the central body. However, repulsive force developed by that body, as condensation of that evolved matter continued, together with the outside influences qualifying this force, qualified this rotary motion—the propagated rotary motion of the central body, which, otherwise, would have been purely rotary—into an orbital. One influence has qual-

ified another, in this case ; the rotary motion of Saturn's rings is an example of rotary and orbital motion combined.

Like other formations, these rings are subject to the disturbing forces of the system to which they belong. Perturbations existing in the Saturnian system disturb the equilibrium of their motions. The stability of the system of rings depends upon the attractive and repulsive forces of the system, and upon the situation of their plane. The central body repels, while the eight formations attract ; the central body attracts, while the eight formations repel ; while at the same time, spherul matter of the system in their plane, is a retaining force to them. Thus, by the perfect law governing planetary systems, is the stability of the Saturnian system insured. To the inhabitants of Saturn, the system of rings presents a spectacle, the most wondrous and sublime. Nine concentric rings, so situated with respect to the planet that they are all visible from its surface, luminous—shining with the splendor of the eight moons which beautify the nights of Saturn, present a spectacle wonderful as it is rare ; sublime as it is wonderful.

The sixth formation—Jupiter, at the period of the evolution of the eleventh, had reached nearly the ninth era, or boiling sulphur stage. The balancing formation of the system, of size surpassing that of any other of the system, it naturally possessed advantages for development equal to those of any other formation of the system. However, circumstances to be enunciated occurred to render its situation less favorable than was that of the fifth. It has attained the tenth planetary era. It has evolved four formations. These, also those of the fifth, are in an undeveloped condition.

The seventh formation is an example of the overbalancing power exerted by the balancing formation of a system, under peculiar circumstances ; an example of the disruptive force

exerted by this, upon smaller formations, under favorable circumstances ;—an example of the contingencies which occur in the universe, obedient to the law determining that contingencies shall occur, and shall result in the final destruction of the universe of forms, and the disorganization of matter. This formation was of a size nearly corresponding with that of the fifth ; however it was smaller. At the period of its evolution, the balancing formation—Jupiter, had reached the fourth cometary era ; its power over the new formation was immense, it being of such preponderating size and mass. The first revolution of the new formation determined its destruction. Seeking its orbit, it approached the sphere of Jupiter as that formation was nearing its aphelion. The powerful influence exerted by this sphere diverted it from its proper orbit—the path it would have pursued had Jupiter been in any other part of its orbit ; it became attached to Jupiter's sphere, mingling its matter with the sphere of attractive influence of that formation. As Jupiter pursued its way toward its perihelion, this formation strove to attain its independent orbit. Attractive influences of other formations, of Sun, and its own central force, were all exerted to rend this formation, so to speak, from the embrace of the monster threatening its destruction. Vain were the efforts, however, exerted by these combined forces to preserve the individuality of the formation ; as a whole, it could not be detached from Jupiter's attractive sphere. Detached portions of it refused to obey the attractive force of that formation, being too undeveloped to move with its unwonted speed ; these remained, cometary masses, in that region of the system, then Jupiter's aphelion, while others, more developed than these, obeying the attractive influences of other formations, became detached from Jupiter's influence in sections of the system where more condensed forces could act upon them ; other portions remained attached to Jupiter's sphere until it neared its perihelion, when the more powerful attractive force

of Sun's sphere detached the last remnants of this matter from its train. Thus was this formation disrupted; thus was what had been a perfect form, rent into fragments, which were scattered, being masses of rare, vapory matter, throughout the stratum developing the formation, the next interior one, that in which Jupiter revolved, and the next outer. These fragments were numerous; masses being detached at periods, during the whole journey of Jupiter from its aphelion to its perihelion, as attractive forces of the different formations of the system operated upon the different grades of matter of the form. Detached portions of its rarest matter were left behind by the unwonted speed with which the nucleus traveled, obedient to the attractive force of Jupiter, which was steadily, stealthily, assuming the mastery over the central force of the formation. These rare fragments followed in the wake of the form from which they were detached, obedient to its attractive force, until, by the superior velocity with which it was forced to travel, they were left behind—detached from the sphere of attractive influence of the parent form. These fragments remained in the wake of Jupiter—asteroids, revolving in the stratum in which that formation revolves, or the next outer, and some of them remain there still. Of rarest cometary matter, for the immense ages since that catastrophe, they have revolved as rare comets; not possessing sufficient affinity with the more condensed fragments of the form to cause them to be attracted to these; they have remained lost in other strata of the system from that in which they belonged, or upon the outskirts of that, obedient to the foreign influences exerted upon them from those strata.

The more condensed fragments detached while within the seventh stratum, have attained position within the eighth, by virtue of the affinitizing forces exerted upon them by that stratum. Some of these are yet cometary, while many of them have arrived at the planetary condition. Asteroids, these fragments are termed,—minor planets.

Does nature institute a form, she develops agencies for the protection of that form; for the retention of its organization. Does accident—contingency, determine its disruption, these agencies still operate for the restoration of lost conditions,—for the healing of the wounds, so to speak, which by accident have been inflicted upon it. Central force—attractive force of condensed, affinitized matter, and orbital motion, are the agencies for the restoration of a disrupted form to its original condition; for the union of its scattered fragments, to make of them one whole, perfect organization, according to the original design; the necessities of the system to which it belongs.

Does one member suffer, the whole body suffers; emphatically true is this of a system. Not one member of the solar system but has suffered from the disruption of the seventh formation; some have suffered to a far greater degree than others. The balancing formation has suffered much; the fifth much, though less than that; the eighth has suffered more than any other formation of the system; the ninth much; the others in proportion to their positions in the system. It being disrupted, Jupiter lacked an adequate disturbing force interior to it; has lacked this, although subsequently, the interior formations have been evolved as disturbing agencies to it. In consequence, its progress has been delayed. Saturn lacked an adequate disturbing agency interior to it, during a portion of its revolution, as did the other outer planets. The eighth formation lacked an adequate outer disturbing agent, the most important agent for its development. Separated from the balancing formation by such a space,—a vacant stratum in one sense, vacant of an adequate disturbing agent, it revolved alone, so to speak, for the ages preceding the evolution of the ninth formation.

However powerful the influence of the balancing, or any other formation may be, it is a propagated influence. As a stratum propagates attractive force from the one interior to

the one exterior to it, and vice versa, so a formation propagates attractive force from the one interior to it to the one exterior, and vice versa. As every stratum of a system, and every stratum of any form, is necessary for the perfect propagation of the forces of the system—the form, so is every formation necessary for the perfect propagation of the forces of the system; a vacant space being destructive, in that, with such a space, the forces of the system can not be transmitted from one extremity of it to the other.

The disrupted formation, although it did not, in its fragmentary condition, perfectly serve the purposes of the system, served as an agent for the transmission of the forces of the system; although it did not serve the perfect purposes of its own development, and that of distant formations, yet, it displayed independent individual forces exerted for its own progress, and for the purposes of the system. The asteroids scattered throughout the eighth stratum propagated Jupiter's influence to the ninth—the eighth formation, to such a degree that it was qualified sufficiently to act as a developing agent to the ninth formation after its evolution. However, at this period, it was so rare that its influence over the new formation was slight,—insufficient to answer the purposes of the formation—to insure its rapid progress. In consequence, Earth suffered much from want of an adequate outer disturbing agent.

The asteroidal system, possessing the advantages of a position next to the balancing formation, with the fifth, eighth, and ninth as its neighboring formations, progressed rapidly, considering the circumstances of its existence. The more condensed fragments, as the nucleus, and parts adjoining it, developed the planetary condition in the proper order of the formation, approximately; and sooner than the formation would have done had it not been disrupted. Separated from the rarer portions of the body, acted upon by the developing agencies so numerous in the asteroidal system, and also being

of dense matter, comparatively, they developed rapidly; outstripping an undiscovered formation occupying the eighth stratum of a system corresponding to the solar. More than half of the asteroids have developed the planetary condition; while more than one half of the remainder have reached a dense cometary stage; some of them now solidifying their surfaces. The remainder are in all the different cometary stages from the dense vapory, to the lava stage. Attaining the planetary condition—several stages of this condition, none of these have ever produced man, or the stage necessary for his production. Disaster is productive of disaster; misfortune of misfortune; this has been emphatically true of the catastrophe to the seventh formation. It determined catastrophe after catastrophe, to the asteroidal system; misfortune after misfortune, to the individual forms of that system. The effort to restore the organization destroyed by catastrophe, has caused repeated collisions of fragments, repeated disaster to the developed condition of individual fragments.

Ultra Zodiacal planets, these asteroids are termed, from the position which their orbits occupy in the system; they not being confined to the limits of the Zodiac.

From the position which Jupiter occupied at the period of the disruption of the form, as has been stated, some fragments remained in its wake, finding their orbits in the seventh and sixth strata, while others, being detached at different periods, in different parts of the seventh and eighth strata, found their orbits in the eighth, by virtue of their superiority of individual force and position, when detached. Finding orbits in the eighth stratum, where disturbing influences of the whole family of asteroids could act upon them individually, these orbits were most eccentric. Irregularity has marked the orbital motion of the asteroids from the first. Affinitized matter, these fragments have irresistibly, ceaselessly, tended toward each other since the period of the first institution of the asteroidal system. The nucleus or frag-

ment containing it,—all the more condensed fragments, revolve in greatly diverse orbits at present, from those in which they first revolved; while all have perceptibly changed their direction of motion since the institution of their orbital motion. Three times has collision disturbed the developing conditions of the nucleus. Five times have disturbing influences coming in close contact with its individual sphere, disturbed the developing conditions of that fragment, to the degree, that ages were necessary to restore it to its lost condition. Three times have collisions disturbed the developing conditions of six of the more condensed fragments, next to the nucleus, and as many times have disturbing influences, coming in close contact with their individual spheres, disturbed their developing conditions, to the degree, that ages were necessary for a restoration of their lost conditions; while to many other fragments, single catastrophes, as collisions, and the other above named, have occurred to disturb developed conditions to the same degree. Circumstances determined that the fragment of which the nucleus was a part, should be an overbalancing fragment to the other approximately qualified fragments; therefore, the tendency has been to this fragment. More catastrophes have occurred to it than to any of the others. Had circumstances determined either of the other more condensed fragments to be an overbalancing one, by virtue of superiority of individual force developed by size, it would have become the nucleus—the fragment to which would have tended the other fragments; in this case, consequences to the system would have been the same as those now existing. The nucleus was not the largest fragment; many others far surpassed it in size; its superiority of individual force constituted it the overbalancing fragment; it being of sufficient size to develop this overbalancing force from its quantity of condensed matter. At each collision with the nucleus, a fragment has attached itself to this, increasing its size, individual force, and attractive influence

over all other fragments ; at each collision with other fragments, a fragment has attached itself to the most massive, thereby increasing its size, individual force, and attractive influence over other fragments. Attractive influence of the nucleus, or of other qualified fragments, being increased, orbits being left vacant by the absorption of fragments into the nucleus, disorder resulted to the whole asteroidal system ; all orbits of the system changed. Disorder resulting in the change of orbits—change of direction of motion of fragments, was disorder in their established surface conditions ; the order of seasons changed, and in consequence, all surface conditions. However disastrous these consequences have been to developing conditions of those fragments only thus affected by these catastrophes, they have been slight compared with those occurring to the colliding bodies.

In the discussion of the subject of disorganization of universes, it was stated, that ponderability was developed by an asteroidal system to balance that of its balancing formations. The asteroidal system of the solar system being a perfect example of all asteroidal systems, the elucidation of the subject of collisions, disturbances, in this system, will exemplify the theory there laid down.

At the period of the first collision of a fragment with the nucleus, that fragment had attained the planetary condition. Immense periods of ages occurred after the disruption of the original form, before attractive force of the various fragments had become sufficiently developed to cause a tendency toward the nucleus of the more condensed fragments, and of these toward each other, sufficient to produce collision. During these ages, the ceaseless tendency of these fragments had been toward the nucleus of the system—the stratum wherein the most condensed fragments were situated ; and during this period these fragments had progressed until the nucleus, and the six other most condensed fragments, had attained the planetary condition.

The first collision occurred when the nucleus was in the fourth planetary era ; water and land surface existed, also animal and vegetable species. Since the latter portion of the first planetary era—the period when crystalline rock was first produced, emanations from it had tended to the spiritual sphere ; however, these were comparatively few ; no animal or vegetable, and but few mineral organizations having become, up to that time, sufficiently qualified ones to eliminate a spiritual substance of a grade to ascend to the spiritual sphere.

Ponderability, during the fourth era, is developed to the fifth degree ; there being seven degrees of ponderability, so termed, developed by forms.

At this period the six other fragments had attained the second planetary era—the watery. Spiritual emanations were ascending from all these, though exceedingly rare emanations ; while the third degree of ponderability was developed. Other fragments had attained the eleventh cometary era, the lava stage, which is the stage that completes the first degree of ponderability of a formation. All formations, up to the twelfth cometary era, or planetary stage, as the last cometary era is termed, are said to be of the first degree of ponderability. Developing ponderability through eleven cometary eras, they yet develop it only in the proportion of its development through one degree.

The corresponding formation at this period had attained the first planetary era—the second degree of ponderability. It was a balancing system to the asteroidal. Developing all its matter together, being a perfect organization, ponderability of it balanced that of all the fragments of the asteroidal system taken together. The degrees of ponderability developed by the nucleus, and the six other most condensed forms, with that developed by those in the lava stage, and the partial degree by the others, was the second degree for the whole disrupted organization, which determined it to be, as a system, a counterbalancing one to its corresponding system.

A contingency was imminent at this period in the universal system. The nucleus approaching the sixth degree of ponderability, when development of this is so rapid, the asteroidal system would have overbalanced the corresponding one had not circumstances determined a collision in the asteroidal system. A collision occurred as the preserver of the balance of the two systems. The fragment which collided with the nucleus was one of the six condensed fragments. Its orbit had gradually approached that of the nucleus until a collision was unavoidable, a conjunction of the two fragments occurring in that part of their orbits in nearest coincidence with each other. After collision was inevitable, they made many revolutions before a conjunction occurred determining it.

Spheres of attractive force meet, but never commingle; this is a general law; however, asteroidal systems being exceptions to the general law of systems, this law is not as strictly applicable in their case as in cases of other systems. Being affinitized matter—parts of the same form, the tendency of the forms of such a system is to each other; their spheres, developed as individual spheres of but partially diverse forms, more naturally commingle than the spheres of sister forms, so termed, being parts of the same sphere. They act as disturbing agencies to each other, as the forms of any other system act; developing attractive and repulsive spheres like other forms; yet their repulsive spheres are not, like those of other forms, strong to resist their stronger attractive spheres; in consequence, they collide; whereas, in a regularly organized system, collision is impossible—the actual commingling of spheres of attractive force, the actual collision of condensed bodies of formations. The catastrophe which resulted in the disruption of the seventh formation, was not a collision, properly termed. Jupiter's sphere of attractive influence only, commingled with the undeveloped matter of the disrupted formation; which matter was attached to Jupiter's attractive sphere; not one atom of this formation

mingled with Jupiter's system—termed Jupiter's sphere of attractive force. Unaffinitized, it was repulsed by the atomic repulsive force of outer atoms of this system.

The collision of two planetary bodies, the commingling of two systems into one, is a catastrophe whose effects cannot be appreciated by man uninstructed in the science of universal phenomena. The total disarrangement of strata of both systems, the commingling of diverse atoms of primeval matter, the re-stratification of this matter to form a new system; the commingling of diverse atmospheric atoms of the two condensed bodies, the re-stratification of these atoms to form a new atmosphere; the concussion incident upon the collision of two solidified bodies, the commingling of the diverse matter of these;—all these circumstances combine to render it an unimaginable catastrophe; a circumstance, a contemplation of which, produces in the mind emotions of awe and dismay. Horror upon horror to the unfortunate forms colliding; catastrophe upon catastrophe! Ages roll away, and yet it is horror, catastrophe!

Re-stratification of primeval elements is necessary before they become a perfect media for the transmission of electric currents to the distracted mass forming the central body of the newly forming system. This is the principal cause of delay of restoration of developed conditions of the matter of this body. Being of comparatively qualified substance, these forms would commingle their substance, and their atmospheres, in a comparatively short period, were electric currents from the central body of the parent system perfectly transmitted to them; yet being deprived of the necessary amount of the electric fluid, darkness and cold, is the condition upon the surface of the body, for the ages while the primeval matter of the two systems is re-stratifying. Motion of primeval matter of all grades being of an exceedingly low grade of motion, ages elapse before this re-stratification is completed,—

before a perfect combination of the diverse elements of the two systems is consummated.

During these ages, conditions on the surface of the new organization, as it may be termed, are changing. Disintegration of the outer matter of the least condensed form rapidly occurring from the force of chemical action of a comparatively high grade of elements upon these lower ones, causes the surface of this to crumble away gradually, and in masses. Whole mountains of the lower form of rock of this formation, at periods, break from their foundations and crumble, the debris being scattered far and wide. Volcanic fissures are laid bare, from whence issue in vast masses, the condensed elements struggling for escape.

A whole section of a planet blazing with volcanic fires ! A whole section deluged with liquid, fiery lava ! A period arrives when disintegration lays bare the interior of the more uncondensed planet ; then it seems that the acme of desolation has been reached ; the climax of low conditions been attained. Internal elements mingling with atmosphere, induces a condition similar to that which prevails in the cometary eras of a planet. Gaseous, fiery, sulphurous, for a season it seems that primeval conditions are being restored ; that retrogradation, not progress, is the law. Chemical action of atmospheric and other elements upon these gross elements, even in the disordered state of all elements at the surface, rapidly condenses this liquid matter—restores comparatively developed conditions ;—as rapidly as circumstances of condition of atmosphere and of spherul elements will allow. Cold rapidly solidifies the matter inundating surfaces to immense depths ; while liquid, fiery matter issues from the vast crater whose depth is nearly the diameter of a planet, and whose breadth measures hundreds of miles. Long periods, however, elapse after this condition is reached before volcanic fires cease to blaze forth from the uncovered section. Disintegration of solidifying matter is so rapid, in consequence of the chemical

action exerted upon it, that the crater is kept open. Solidifying matter—lower species of volcanic rock, by the agencies brought to bear upon it, rapidly eliminates the higher elements, which pass off as atmospheric elements, to be deposited as substance upon the more developed portion of the body; while the grosser elements determine back into the mass of fiery matter below. Thus is the more undeveloped planet, or portion of the body, combined with the more developed; thus, for long periods, are the surface conditions of this body low, approximating to the cometary.

By the catastrophe, ponderability of both forms is, in a degree, lessened; however, during the whole period of the lowest condition of the new form, it is of the third degree. High conditions overbalance low; destructability of all the advanced conditions of the more condensed portion is not possible.

The concussion produced by the meeting of the two forms, instantaneously disarranges all established surface conditions of both forms. A planet in the second era of its development has its surface covered, either partially, or entirely, with water; during the former part of the era it is volcanic. As the spheres of the two bodies commingle, prior to the approaching inevitable collision, the more condensed body, being the more strongly attractive one, is deluged with water, fire, and debris of all imaginable substances existing upon, or forming the surface of a planet in an early stage. Not long, however, does this continue before the collision; attractive forces of the two approaching bodies being so powerful, that but a short space intervenes between the commingling of the spheres, and the actual contact of the solidified bodies. Were this period long, the approaching, less condensed form, would actually fall assunder; its advent upon the surface of the other would be that of a disrupted planet. This is not nature's method. Too destructive of developed conditions would be such a deluge of fiery matter as would overwhelm

both the planets from the central portion of this. Collision is never productive of disruption. The contact of two planets developed to the condition of the nucleus and the colliding form at the period of the first collision, or developed to the condition reached by any two bodies of an asteroidal system when a collision is possible, is the contact of two strongly repulsive spheres. The individual forces of each planet, qualified to that degree that solidification has occurred, are qualified to such a degree as to strongly resist the attractive influences drawing the bodies together. The proneness of the one to the other is not that of a solid body, a portion of a planet's crust, to it; the latter let fall from a height, tends to the surface with ever increasing velocity, it being of the planet, and having no individual force—no developed sphere, or atmosphere, independent of the planet. The repulsive spheres of the two bodies meeting, velocity is lessened; the atmospheres meeting, velocity is again lessened; the denser strata of atmospheres meeting, velocity continues to lessen. Attractive force, however, stronger than repulsive; overcomes all these obstacles. The concussion, which is qualified by the repulsive forces mentioned, is indescribable; both forms tremble from center to circumference; devastation over the entire surface of each is the consequence.

Language is inadequate to give a perfect idea of the conditions inaugurated by such a catastrophe. With surface conditions entirely changed, both bodies retain their original form. They lie in each other's embrace as individual forms until disintegration—the processes above described, have commingled their elements. The period necessary for the restoration upon the nucleus or most condensed form, of the lost condition, is a period amounting in length, in every case of the above description, to millions of years—periods of ages.

The second collision which occurred in the asteroidal system, was that of a fragment in the first planetary era, with one in the third.

The third catastrophe in this system was the near contact of spheres of the nucleus and a condensed fragment. This was productive of great disorder in the system, great disturbance of conditions of both fragments. What of disaster occurred to the conditions of the two nearly colliding forms, occurred in consequence of partial commingling of spheres. Such a contingency occurred when the orbits of two asteroids tended so nearly together as to compel a commingling of spheres, should a conjunction occur in that section of the orbits. Actual collision in such a case was prevented by the overbalancing force exerted upon the separate forms from the direction opposite the nearly colliding body.

Delay of Development occurred in consequence of this disturbance of the spherul elements of the two systems. Disturbance of electric conditions of the two bodies was the first result of this disturbance of spherul matter, resulting in disastrous consequences to surface conditions in consequence of floods, upheavals, &c. caused by such disturbance. Succeeding the establishment of this condition, a night of ages intervened—a period wherein the vivifying effects of Sun's electric currents could not be felt by them; the light and heat necessary to a planet could not operate upon their surface matter to impel progress of those planetary surfaces. As in case of an actual collision, re-stratification of spherul elements must ensue before natural conditions could again exist upon the surface of the disturbed asteroids. The period necessary for this re-stratification, was longer or shorter, according to the extent of disturbance of these elements of the two systems. Ages—thousands of years, and in some cases, tens of thousands of years, have been required in cases of such catastrophes in the asteroidal system, to restore natural conditions upon the surfaces of the disturbed bodies.

The fourth catastrophe in the asteroidal system was a collision of two condensed fragments.

The fifth, a collision of a condensed fragment with the nu-

cleus. Thus have they continued until the number above enumerated have occurred to disturb the system ; to delay development of the positive element by it.

The asteroidal system exists in the solar system, as a monument of the wisdom of the plan of the Originator of the universe ; the capacity of the Divine Mind for providing for all the emergencies which may occur in a universe ; for originating law to subserve all the purposes—all the actual needs of a universe. What but infinite wisdom could have originated a plan which should so perfectly subserve the purpose intended—the preservation of the balance of the universe ? Or, what but infinite wisdom could have instituted such a plan for the accomplishment of the disorganization of the universe, as the disruption of a formation, the institution of an asteroidal system for the purpose of destroying the balance of the universe when the appropriate moment should arrive ? Awed, overpowered by its emotion, mind pauses in the contemplation of a subject so sublime, so Divine !

The asteroidal system, as remarked, has partially subserved the purposes of the parent system. As a system, it has subserved these purposes, notwithstanding the collisions which have occurred, the determination of bodies to each other, the lessening of the number of bodies of the system. The derangement which has occurred to contiguous formations from the disturbances within this system, have been too slight to be noted by them. The disturbance to the parent system by the loss of bodies from this system, the changes in orbital motion of bodies of it in consequence of the determination of bodies together, has been too slight to be noted by it.

The eighth formation—Mars, had attained the fourth cometary era at the period of the evolution of the eleventh. Its progress had been unprecedentedly slow from the circumstance of its position next the disrupted formation. It is now in its sixth planetary era. Its condition is less advanced

than that of the ninth—the succeeding formation. From its size, and its position in the system, it evolved no formation.

The ninth formation—Earth, was in the fourth cometary era at the period of the evolution of the eleventh. It had overtaken, was outstripping the eighth, from the circumstance of its more favorable position. Earth is in its eighth planetary era. From the circumstances of its size, and its position in the system, it has evolved one formation. This is in a low condition, like all the secondary formations of the solar system.

The tenth formation—Venus, had attained the third cometary era at the period of the evolution of the eleventh. It has attained the seventh planetary era. From its size and position, it evolved no formation.

The eleventh formation—Mercury, is in the sixth planetary era. It has evolved no formation.

The secondary formations of the solar system, those of all systems of the size of the solar, surrounded from the period of their evolution by unfavorable circumstances, develop planetary conditions unlike those developed by their primaries,—lower conditions. The elucidation of the laws governing one secondary of the system, being an elucidation of those governing all, Moon will be taken as the exemplar of these laws in the system.

Quality of matter of a system, in a measure, determines the probability of its evolution into the eleven formations, or into a less number, during the bearing period of the central body. Size of formations, and position in the system, however, overbalance all other circumstances. A formation being of small size, as the outer formation of the solar system, and

Earth, necessarily exert such an influence over all the evolvable matter of their systems, as to evolve it in one form, be it of high, or low quality. Larger formations, having correspondingly large systems, exert their influence over the evolvable matter of their systems, to evolve it more in accordance with the law of large formations—the law determining the evolution of the eleven—subject, however, to position. Only by forms of intermediate size, is the influence of quality of matter exerted in determining the number of formations. In the solar system, Saturn is of the right quality of matter, other circumstances being favorable, for the evolution of the eleven formations by its system. Of a quality to be readily susceptible to the developing influences exerted upon it by the central body and the matter of the stratum in which it was situated, and space sufficient being allowed it, matter of the several strata of Saturn's system evolved into forms, or rings, as before described. Jupiter was of too high a quality of matter, considering circumstance of position in the system—depth of the stratum in which it was situated, to evolve more than its four formations. The quality of the evolvable matter of its system being high, rendered it highly susceptible to the influence exerted upon it by the central body, which, from circumstances, was a powerful influence—powerful to effect its speedy evolution.

In a system of the size of the solar, where attractive influences are so intense, evolution and condensation of matter of secondaries occur prematurely. Of the appropriate grade and size to evolve, to condense its formations properly, it is of too small size considering its grade, its forces are too condensed to properly condense secondary formations; to allow them appropriate time for condensation. Of a high grade of matter, a high order of formation, they would rapidly progress under favorable circumstances; would reach the planetary condition, naturally developed, long periods sooner than their parent forms; yet unnaturally developing—condensing, solid-

ifying too soon, their planetary condition, when reached, is not of a grade termed high; the premature solidification of their surfaces is not the production of the proper initiatory conditions to a planet's natural progress. The confusion of conditions, so to speak, upon these solidified bodies, delays the institution of high planetary conditions; destroys the possibility of their institution by such forms.

Premature condensation of cometary matter, signifies the fixing of elements by the too rapid application of heat;—the exhaustion of elements by the too rapid elimination of the electric fluid, the highest element of matter, by the application of heat.

The evolution of matter, signifies the combination of atoms of grossest electric fluid, which combination elicits—forms, the element light; an element, an accumulation of atoms of which, sufficiently affects the nerve of the physical eye to render it visible, so termed, to that eye; which signifies, appreciable by the sensational nerve of vision. The accumulation of atoms is substance; therefore, all substance appreciable to human vision, any physical sense, is an accumulation of atoms of gross electric element or fluid.

Atomic matter unaccumulated, is unevolved primeval matter, inappreciable by any physical sense. Accumulation results from motion—elemental action induced by attractive force of an electric element pervading matter.

Proximity of atoms of this grossest electric element, such proximity as results from combination, induces stronger attractive force between those atoms; which force elicits the inherent qualities of those atoms—the life-elements. Life-elements are also atomic electric elements, which accumulating, combining, by the same law, form higher substances in nature;—form, as they are elicited from the grades of substance in nature, all the grades of substance, of forms of physical nature, of spiritual also. The unaccumulated element pervading nature, termed electricity, is the atomic elec-

tric element elicited by action from matter; from all the grades of matter commingling to form a planet, and the forms of that planet. Elicited perpetually by the perpetual action of matter, it as perpetually accumulates to form substance of the higher grades, as above explained; while the phenomena attending the accumulation of this atomic matter, is all the phenomena of nature;—is the institution of forms of mineral, vegetable, animal life, growth of these forms; the institution of the atmosphere, water, the gases, the magnetic fluid; the organization of man—body, soul, and spirit; and the institution of the spiritual universe. As was taught in the preceding chapter, this formation—this accumulation, is effected by interchange of positive and negative.

The primal elements, as already stated, signify forty-two different elements, formed by as many different methods of combination of the grossest electric element; each combination forming the base of matter for the period of action succeeding its evolution; and each successive combination, or primal element, being of a higher grade than the preceding. Thus it is that all forms can be elicited from each primal element; yet, in shorter periods during the later periods of action of a compound cycle; thus it is, that re-combination succeeds re-combination through the succession of eternities of action of a compound cycle, as one primal element after another is evolved by the universe of matter. Thus it is, that action of primeval matter with the evolved primal element during the first period of action, elicits the second.

The base of matter, signifies, the lowest form of matter capable of entering into form; in other words, the lowest substance; which term, substance, properly signifies evolved matter—evolved into the appreciable physical form; or matter stimulated to the degree that it is susceptible of evolution into appreciable physical matter; or into higher grades of primeval matter. In other words; substance is all matter, whether physical or spiritual, susceptible of development

into higher form ; which may not properly be said of unstimulated primeval matter ; it being unsusceptible of development into form for an eternity or eternities, according to its grade.

The base of matter during the first period of action is the stimulated grade of primeval matter ; that grade which enters into form during the period. The element elicited by action of primeval matter upon the lowest form of substance during the first period of action of a compound cycle, is an element but slightly higher than the first primal element ; yet it is a higher element ; and resulting, simply, from action of primeval matter upon substance, as remarked. This is the base of matter during the second period of action—the second primal element. During the period of rest succeeding a period of action, utter decomposition does not ensue ; only decomposition of form ; therefore, at the institution of the second period of action, the first primal element and the second are in organization ; they exist in the form of gross electricity pervading universal space, inappreciable, in that it is unaccumulated in a degree to be appreciable ; yet, it is accumulated in a degree. These two grades operating together during the second period of action, a third element is elicited—a third re-combination of the gross electric element results, a higher combination than the preceding. This is the base of matter during the third period of action—the third primal element.

Thus the primal elements act upon each other for their evolution to the forty-second ; thus the forty-second is evolved during the forty-first period of action by the forty-first with all the other forty, which are still in combination ; a portion of each element remaining unused—unapplied for the purposes of nature during the entire period wherein it constituted the base of matter, and since that period ; existing as gross electric element in universal space, in the form of grades of primeval matter ; too gross to be acted upon for

evolution by nature's forces ; yet belonging to the stimulated grade, and to the seven grades of this stimulated grade ; and, which matter is that primeval matter forming the spheres of attractive force of the universal sphere, and the six orders of spheres, or suns. The evolution of a primal element by the co-operation of those hitherto evolved, signifies, the action of grades of the electric fluid upon each other ; such action as can not ensue without the existence, in nature, of low grades to act with high—grades, although low, yet, sufficiently affinized to the high, to act with them. Unstimulated matter signifies, that unaffected at the introduction of a period of action by the grade of stimulation introducing the period. The several grades of unstimulated matter commingling to form the spheres of attractive force and influence of the several orders of suns, as above remarked, act upon each other, and through each other upon the latest evolved primal element for the evolution of another, only while there remains a fund, so to speak, of electric force from which to draw to stimulate this action. This fund is constituted of actual physical positive, inherent in all the grades thus acting together, until it becomes exhausted by the continual draft upon it during a compound cycle of action. Decomposition of matter resulting after a single period of action, results only from partial loss of equilibrium of positive and negative, properly speaking, which partial loss is induced by exhaustion of positive physical from only the physical universe ; or the universe of evolved matter. A single period of rest suffices to restore the lost proportion to this highest grade of matter. Continued action through the succession of periods of a compound cycle, suffices to exhaust every grade of the stimulated grade—that stimulated at the introduction of the compound cycle, to the degree that action of grades upon each other can not result in a recombination of matter for the formation of another primal element ; or a new base of matter for another period of action.

This positive physical, as it is termed, so exhausted from the several grades of primeval matter, may be termed the power a grade possesses to act with another grade; which also signifies, the actual loss by the successive grades of their highest atomic matter, or life-force, by the continued electric action exerted upon them from higher grades through this long period. Thus the forty-second period of action is a period of inaction, comparatively; it is a period wherein the basic element elicited for its use during the last period, is not acted upon by the other primal elements for the evolution of form, no re-combination being possible for the institution of another primal element. It is a period of action only in that, decomposition—re-absorption of primal elements, does not ensue during the period; as atomic action of the latest evolved primal element and the others, is sufficiently intense to prevent this.

The primal element constituting the base of matter during a period of action, enters into form by virtue of atomic action of it induced by the two grades of electric force. Form acts upon form, as already delineated, for the evolution of higher form; electric force being perpetually the agent whereby form is induced. Electric currents, it has been stated, pass and repass from organs of the same body, from the different bodies of the universe, and from the different universes to each other. As of an organized element, they thus pass and repass—organized as any other chemical agent is organized by the accumulation of lower elements; and which organized element enters into form, combining with a like element upon the form to which it passes. Thus formation is aided upon one sun or planet by the electric current from another; thus all bodies in the universe aid each other, are indissolubly connected by the life-currents which pass and repass from the various organs to each other. Thus life-currents connect the innumerable centers of the infinite universe, the innumerable suns of the infinite universe. Thus

is the infinite universe one; the electric current constituting its center,—the force upon which physical centers depend.

A grade of the electric element begets a higher grade, as an order of suns begets a higher order. A higher grade of the electric element is evolved precisely as a primal element is evolved,—by the action of a lower upon all others still lower of the same inherent quality. Thus, Sun generates an element for the use of the bodies of its system, by the action of electric currents from its parent sun, combined with those from the lower orders and the central sun, acting upon that generated by its own matter. Earth generates a fluid for the use of the body of its system, higher than that which is generated by simple elemental action of its own matter, by the action of currents from Sun, the lower orders, and the central sun, upon this element generated by itself. Higher orders of forms are thus supported by an electric fluid from parent forms, fitted for their use, of a quality to be appreciated by their higher order of matter—the element they themselves generate.

Electricity—the common application of the term, is a vague appellation of the life-element of nature. To attempt to enumerate the grades, the varieties of this element—this form of matter, would be to attempt to enumerate the grades, the varieties of form of developing matter. No substance but eliminates its electric fluid; no form but possesses a life-principle, which is this fluid.

Light, as remarked, is the accumulation of atoms of electric fluid; it is the first condition of appreciable matter—physical substance. A rare cometary body, as a sun emanating from the womb of its parent sun, or in its first stages of cometary development, is, therefore, gross light. The term light is applied to this matter, as only appropriate from the nature of the matter; it being substance totally without heat, or any evolved form of the electric fluid, save that it is itself the grossest form of that fluid. So gross is the com-

position of this matter, that ages elapse, and still it is simply an accumulation of atoms of the grossest electric element, action of its atoms being of so low a grade as to elicit the higher electric element and heat in inappreciable degrees. This form of light is as diverse from the light generated in Earth's atmosphere, as is the vapor of water. The high grade of light generated in Earth's atmosphere, is inappreciable, save in its effects; so high is its quality, that chemical action of it upon surface matter elicits a grosser light from this matter; a light which is appreciable to the physical sense; this renders objects visible.

This first form of matter resembles vapor; it is cold vapory light until chemical action of its atoms becomes sufficiently intense to produce heat as an effect of this action. Heat accompanying light, is the second condition of physical substance. Heat is the effect of the evolution of elements from matter. Its existence in a cometary body is evidence that a finer electric fluid is being generated by atomic action of the matter composing the body. Action begets action; a degree of heat begets a stronger degree; thus, as the ages advance—the childhood of a sun, the rare vapory condition is followed by the dense vapory, this by the rare mercurial, this by the dense mercurial; stages wherein are generated, successively, the degrees of heat requisite to elicit sufficient of a higher electric fluid to operate upon the grosser, for the evolution of still higher. These stages are necessarily long with suns of every order; longer with those of lower, than those of higher orders, necessarily; in that, unless appropriate time is given for the evolution of all grades of the higher electric elements from all grades of the lower, progress of matter can not ensue. No one grade can be spared from the infinite number composing a system of developing matter; as it is the combined action of all elements that induces the appropriate condition of matter for the evolution of high

forms ; and it is the combination of all elements that induces perfect form.

The lower the order—the rarer the matter of a form, the longer will be the period necessary for condensation of this matter ; as such matter eliminates its inherent elements less rapidly than more dense matter. The higher order of suns, of more dense matter, condense in shorter periods ; however, sufficient time for proper action of all grades of matter of them is as necessary as in case of the lower orders ; and it is the premature evolution of the electric element by the higher grades of a form, that degrades that form ; as in the case of the secondaries of the solar system.

The too rapid evolution of the electric element by matter of these forms in process of condensation, its exhaustion, signifies, that higher grades of this matter evolved the higher electric element prior to lower grades ; that these evolved elements entered into form prematurely, or without the necessary addition of the elements from the lower grades ; which addition was requisite to constitute perfection of form of any grade. This premature combination of these elements fixed them ; in other words, rendered them incapable of acting in aid of the evolution of the other necessary elements from the matter of those forms.

The grade of the solar system being high, and it being of small size, its secondary formations could not properly condense. Condensed matter of narrow strata, condensed formations of these strata, acting upon cometary matter of these secondaries, condensed it before it was able to eliminate the higher electric element, from its lower grades of matter ; in other words, form was instituted prematurely by the higher, first evolved elements of these formations. In consequence, all matter of these forms became, as it were, enervated—exhausted of its inherent force. Surface solidification of most of these ensued at the period when they should have only attained the fourth cometary stage ; a rapidity of solid-

ification which determines that they can never attain high planetary conditions; never develop their surfaces to the condition that vegetable, or animal life can flourish upon them. The secondaries, the evolutions of the outer formations—the first and second, being situated in rarer, broader strata, are the most advanced of any of the system; yet these will never develop high animal, or vegetable life. Man can never be produced by any secondary formation of the solar system.

Earth was in its fifth cometary era when Moon was evolved; too early a stage for a formation to evolve all its evolvable matter, and that matter be of high quality, inherently. The condensed forces of the parent system prematurely evolved the matter of the system, aided in the premature evolution of a central atom to which this enervated, prematurely developing matter could determine. The central atom was of matter of the interior section of the eleventh stratum—a qualified atom, in that it was of dense matter; but an unqualified one, in that its atomic motion was, as yet, of very low grade—too low to permit its evolution by the natural method in that dense stratum. Being prematurely evolved from this stratum, not by the natural method—atomic action induced by the revolution of the sphere, but by the action of evolved matter of the parent surrounding it, slightly aided by the action of stratified primeval matter, its rotary motion, as an atom, was determined by the attractive and repulsive forces of the system; the same which determined the orbital motion of the form when it assumed its position as an independent body in the system. An interior stratum of a small sphere whose rotary motion is rapid compared to that of larger spheres, rotates with a degree of motion less rapid, in proportion as the body is smaller. For example: The eleventh, and the outer section of the interior stratum of Earth's individual system, rotate with far less rapid mo-

tion than the corresponding sections of Sun's sphere, although Earth's rotary motion is of much higher grade than Sun's. Central atoms can not be evolved by such spheres, by the natural process, in time to serve as central atoms for the evolved matter of the system, as has been already explained; however, the same forces which effect the speedy evolution of the outer matter of the system in such cases, effects the evolution of central atoms for the use of this matter. Parental attractive and repulsive forces being early developed in such systems, and acting upon matter highly susceptible to their influence, act with the rotation of the sphere in the evolution of the outer matter of the system; thus effecting the premature evolution of this matter. These forces acting upon an atom for its evolution, or upon one whose rotary motion is of low grade, decide its rotary motion.

The unwonted forces of systems of this character, determine the establishment of new laws by them; rather the unwonted action of the established laws. The rotary motion of a secondary of such a system—of the central atom of the secondary, which, from circumstance of premature evolution of the atom, is of low grade, is qualified after its evolution from the parent form;—qualified by the attractive and repulsive forces of the system brought to bear upon it as it seeks its orbit. In no other case is the rotary motion of a central atom of a form thus qualified. In case of central atoms of forms evolved by the larger class of systems, the forces of the system are not sufficiently condensed to act for the qualification of the motion of a central atom after it is decided by evolution; the act of evolution rendering it too diverse from the evolved matter of the system to cause it to appreciate action of such matter sufficiently to affect its atomic motion. These forces act to repel a form from the parent form, acting upon a mass nearly affinized to the mass evolving the forces; otherwise they could never act to repel a form to its orbit. These forces, so powerful in a system of such grade, continue

to qualify the motion of the central atom, and all atoms of the form, after condensation has fixed them; they decide the quality of rotary motion of the mass. The quality of these forces brought to bear upon an atom, changing as it recedes from the center, the rotary motion of the atom changes. Reaching the position where the body naturally finds its orbit, its rotary motion is less rapid than when the atom was first evolved; these forces being less powerful as the distance from the center increases.

Perfect coincidence of rotary and orbital motions is the peculiarity of the secondaries of the solar system, of all systems of the size of the solar, from this cause. The atomic motion of the central atoms thus evolved, is stimulated by the attractive and repulsive forces of evolved matter surrounding it; they are stimulated to evolution by this, instead of being evolved in the natural manner, by the steady, prolonged action of like matter upon them. An atom being thus stimulated to the degree to which it is susceptible of stimulation, its rotary motion is decided by its quality;—the quality of the matter acted upon, instead of the quality of these forces of the system. These are the forces which develop the orbital motion of the body, or bodies, of the system; the central atom of each body, where more than one is evolved, being derived from the section developing the forces which decide the orbital motion of the body; as the reader will comprehend from the explanation given in the foregoing chapter, of the origin of orbital motion.

Difference in quality of orbital motion of secondaries of the solar system, is dependent upon position in the system, depth of strata within which they are situated, the comparative quality of the forces acting for its development; as quality of central atoms, &c. Grade of condensation of forces of the system of the primary, determines the comparative size and position within its system of the secondaries it evolves—(comparative size, if there is more than one evolved.) Thus:—

Saturn, evolving forms, so to speak, for every stratum of its sphere, these forms could not assume position within those strata according to their order ; neither could these forms be of appropriate size, according to their order of position ; forces were too condensed within the Saturnian system.

Jupiter evolved but four formations, whose size and positions in its system were all determined by the action of condensed forces. By reference to astronomical treatises on the subject, the reader will discover the difference in the mean distances, and the comparative size in order of position of the secondaries of the various discovered planets ; which difference is disproportioned to the difference in size of the formations ; and which size is contrary to the established order of size of successive formations. This disproportion is the disproportion in condensation of the forces of the systems of the primaries.

Grade of condensation of forces determining comparative size and position of secondaries within systems, determines it by the premature evolution of the matter of the forms. Premature evolution of matter of forms, and premature evolution of forms, determine these forms to be less susceptible to the forces exerted upon them to repel them from the central body ; consequently, they take positions nearer to that body ; and consequently, their orbital motion is of lower grade ; subject, however, to the size of the primary and of the secondary, and distance from the primary.

Moon's orbital motion corresponds to its quality of matter and grade of condensation of forces of its parent system ; not to real quality of forces of that system ; which forces, operative in the development of the rotary motion of the body, as before stated, develop the same quality of rotary motion of the central atom as of orbital motion of the form.

Condensation of Moon's matter commenced immediately upon its evolution from the parent form. Had it not rapidly accumulated around its central atom — the form been speedily

completed, condensation would have commenced while it was in the womb of the parent; so powerful were the forces brought to bear upon it within this narrow stratum of condensed matter. Solidification of its surface had occurred before Earth had reached its eighth cometary stage.

Premature solidification of Moon's surface matter resulted from premature evolution of this matter from the parent system; and its effects upon the planetary development of the formation were equally disastrous with this premature evolution. Life-elements were wanting in that surface matter to constitute it capable of evolving atmospheric elements in sufficient quantities, or in due proportions, to constitute a perfect form of atmosphere; consequently, no permanent surface development could ensue from the effects of atmospheric action; as this action, though not entirely wanting, was imperfect action, at every period.

Imperfect combination of elements, produces imperfect organizations; imperfect proportions of elements, cause imperfect combinations; and the lack of necessary elements in any proportion, causes imperfect combinations. Since Moon existed as a formation, it has possessed no stable form of atmosphere; as elements, and proportions of elements, have always been lacking, when, by periods during its cometary and planetary stages, it has organized a partial atmosphere from the confused mass of elements which its imperfect surface matter is continually evolving, in greater or less quantities, as the era is one of action or rest. Periodically, since Moon existed, it has essayed to organize, to establish a stable atmosphere. These periods have been Earth's energetic periods—periods when electric action has been most intense in its system. During these periods, atmospheric elements are elicited from Moon's surface matter in greater quantities than during the more inactive periods; sufficient proportions are thus supplied for the formation of an imperfect form of atmosphere; which atmosphere, from its nature, is disorgan-

ized and partially re-absorbed by surface matter, when the action evolving and combining it partially subsides. This partial subsidence of action occurs periodically ; all eras of action, or rest, of the system, being divided and subdivided. An era, as here used, signifies one whose length is determined by the age of the formation, but which is, in any event, ages in length ; while the subdivisions of an era are of indefinite length, as being greater or minor subdivisions.

During all periods of Earth's planetary existence, it has had intervals of rest, dividing and sub-dividing its, so called, active periods or eras ; and corresponding intervals—intervals of deeper repose—dividing its, so called, periods or eras of rest. The small sub-divisions of these eras are but few years in length at this stage of the planet's development, and separated by intervals corresponding to their length ; while the larger ones are centuries in length, and are also separated by corresponding intervals. These shorter intervals correspond to the eras of rest separating those of action ; to the long intervals of inaction sub-dividing the planet's life-period.

At each interval of rest, whether minor or great, there is a subsidence in the electric action of Earth's system ; which subsistence results in the partial or entire—according to the length of the interval—disorganization of Moon's atmosphere.

It is ages since Moon has possessed an organized atmosphere—one properly organized for the inducement of formation upon its surface ; as Earth has been passing through a period of rest many centuries in length, a period corresponding to what was a period of rest to it, emphatically, when it was in the cometary condition ; but which period has exhibited action corresponding to the grade of development of the planet.

The period of rest of the parent system being past, Moon is now organizing an atmosphere, which will be more truly an

atmosphere than any it has ever before organized ; from the fact, that it is evolving the atmospheric elements in greater quantities, and in better proportions, than ever before during its most active periods ; and much more truly an atmosphere than that which it has possessed during the ages of the period of rest just passed. Periodically, during the present active era, partial disorganization and re-absorption of atmospheric elements occur, in consequence of periodic subsidence of electric action, as during the last ; however, effects of this are less marked during this than during the last ; as action is more intense during the intervals of rest of this active era than during those of the last.

The effect of, so called, entire subsidence of electric action at Moon's surface, such subsidence as resulted when a period of rest intervened "when Earth was young"—in the cometary and early planetary eras, was to render Moon invisible from any formation in the solar system. Possessing no appreciable atmosphere, eliminating no appreciable amount of the higher electric fluids, there was no means by which it could become a visible object in the system. The electric fluid eliminated by it during those eras was sufficient to make it an appreciative body to the forces of the system exerted upon it, and no more. Thus, for ages it revolved in its parent system, a dark body, and ages again, a dimly defined body, after it had solidified its surface matter.

Partial disorganization and re-absorption of Moon's atmosphere occurs at intervals of seven years ; again at intervals of forty-nine years ; and again at intervals of seven times forty-nine years ; the ratio of increase of length of the eras being a seven-fold ratio. The length of the intervals being one-seventh the length of the subdivisions, the divisions, &c. What of atmospheric derangement is accomplished during the intervals between the minor subdivisions of an era, is less than that accomplished during the intervals between the great subdivisions ; not according to the length of the intervals, but

according to the quality of electric action in the system during the interval. As, during these short intervals, there is only a slight subsidence of the energy of electric action compared to what occurs during the long intervals, so there is but a slight opportunity for atmospheric derangement; enough, however, of derangement and re-absorption occurs at these short intervals, to somewhat disarrange the partially developed conditions of the surface. The atmosphere, though it but partially disorganizes, ceases for a short interval to be a supporter of life to all the forms, animal and vegetable, which the surface produces; the water, which is imperfectly organized, like the atmosphere, partially disorganizes, and becomes a non-supporter of life to some of the forms dependent upon it; which circumstances, occurring periodically at such short intervals, though they operate to deter development somewhat, but slightly affect general conditions of developed surface, as most of the animal forms hitherto produced by that surface, are of such a nature as to survive the absence of atmosphere for comparatively long intervals; being dormant during the intervals.

Partial inaction is the condition, over the entire surface of the planet; however, the speedy resumption of energetic action in the system, induces the speedy re-arrangement of the atmospheric and aquatic elements, and consequently, the speedy resumption of growth and development of forms.

At the occurrence of a longer interval—of more complete subsidence of electric action in the system, such as occurs at the longer intervals, more complete disorganization of the atmosphere and the water of the planet, inaugurates a more disastrous condition; more of death, loss of forms, than can occur during a short interval. At the occurrence of a long interval of rest—the longest, all animal life upon the planet becomes extinct; no forms, by any possibility, surviving the stagnation of ages.

Organized forms, as animal and vegetable, produced upon

Moon's surface during its various active periods, instead of decomposing by atmospheric action, as like forms do upon Earth's surface, remain integral forms, or but partially decomposed, and strewed over the surface developing them.

— Moon's surface is an open sepulchre !

Atmospheric elements operative upon planets of high grade for the decomposition of such forms, can not here thus act, from the fact of the imperfection of the 'organizations, both of the atmosphere and the forms. The constant tendency of all elements, whether atmospheric, vegetable, or animal, is to the mineral beds originally evolving, ~~them~~ ; which being more perfectly organized forms than any other of the planet, exercise the strongest attractive force of any of the planet, by virtue of the law that ordains, the more perfect the organization, or combination of elements, the more powerful the force exercised by such organization upon all elements of its grade. Were Moon's atmosphere as well organized as its minerals, it would exercise the preponderating force, being a higher form ; in that case, decomposition would ensue upon the planet by its action. Does a form die, whether animal, or vegetable, the speedy absorption of its highest elements by surface elements, renders it unsusceptible to atmospheric agency—such atmospheric agency as can be brought to bear upon it ; and it, consequently, remains an integral form, in the sense that its fibrous structure remains entire ; its higher fluids, only, having been exhausted. \ Thus, no forms ever produced upon this surface have been lost, in one sense ; as Moon, like a closed sepulchre, preserves the forms of its dead from disintegration.

The character of the forms, animal and vegetable, hitherto developed by the planet, has been the character of the atmosphere, the water and the surface ; they have been, emphatically, constituted of elements of the lowest grade that can possibly combine to form animal or vegetable organizations.

The species of animals heretofore produced by Moon are

low;—what may be termed, for want of more appropriate names, the saurian, molusca, testacea, crustacea; of vegetables, the lowest species of marine plants, with some species found only on the margins of stagnant pools, or in marshy districts.

These forms, animal and vegetable, have no types upon Earth, or any other planet of high grade; they are peculiar to planets of the character of Moon;—of the low grade. As hideous as are the forms of the saurian species, some of the molusca and crustacea of Earth, still more hideous are those of Moon; shapeless forms, organized monstrosities, are these reptiles, worms, and other forms thus imperfectly organized. No forms of any species have, in any era, attained to the monstrous sizes which forms of these species of Earth attained in early eras, from lack of the necessary elements to constitute them such.

The first period that developed animal and vegetable forms upon this surface, is as remote as Earth's twelfth cometary era; periodically since that era, the same, and corresponding species have been produced by the same sections of the planet. These sections present a spectacle, such as is only to be found upon secondaries of the same grade. It is as though death had held carnival there for ages; his insignia is enstamped upon every thing; even vacancy, stagnation, in unmistakable accents, whisper—death. Strewed over these sections of surface, in some instances to the depth of many feet, are the shriveled remains of such forms of animal and vegetable life as Moon has ever produced;—the most hideous reptiles, monster worms, misshapen testacea, lie promiscuously, intermingled upon beds of undecomposed vegetation of the lowest orders; beds which have served the purposes of sepulchre for the remains of the forms of every era, as they have been deposited upon them by aquatic action, or otherwise.

Higher conditions are imminent upon Moon's surface; and the era is inaugurated wherein these conditions shall prevail;

yet these conditions can only differ from past, in the particulars of the periodic existence of a higher atmosphere, the periodic re-production of vegetable and animal formations, and, perchance, the production of some slightly higher forms of these, by the same sections of surface, the result of more energetic electric action in the parent system than has ever before existed. The grade of matter of the planet is only susceptible of the production of, approximately, the grades of forms above mentioned, and a grade of atmosphere and water which must disorganize at every period of subsidence of electric action; therefore, however energetic the action instituted at the surface, it can not result in high conditions.

Surface matter of Moon is composed of the lowest forms of volcanic matter. During the second planetary era of the formation, its surface structure was molded, its soil elements deposited. The thin crust which had been formed during the first era, was disrupted by force of internal elements; and the surface of the planet deluged with volcanic matter. Lava surface, was all surface of the planet at that period, properly; however, there were sections where volcanic debris abounded, where this debris was intermixed with the lava to a sufficient extent, that action might result between the different classes of rocks for the formation of soil. These sections are the only sections that have ever produced vegetable, or animal life, or water; the only sections where soil can be said to exist upon the planet. They are sparse, compared to the lava sections, which latter, occupy four fifths of the surface of the planet.

The surface structure is peculiar. This peculiarity is the result of lack of volcanic action since the single period exhibiting it, and the low character of this action during that period. So enervated, so lifeless, were internal elements at this period, that only single craters were formed at the bursting forth of volcanic fires, instead of broad chasms extending hundreds, or thousands of miles, as is the rule upon the high

grade of planets, at the institution of their early eras of action. These craters were broad, and eruptive action continuing, at intervals, through a greater portion of the era, vast masses of volcanic matter was emitted from them; which matter spread over vast sections, forming elevated plains, cones, wave-like ridges, which present the same appearance at this remote period, as when just cooled. The craters, partially filled, present strange appearances; such appearances as are presented by craters lately cooled upon Earth's surface, only upon a grander scale. Many of them are miles in circumference, and miles in depth; with cones in their interiors, miles in height, and cavities whose depth seems immeasurable. They are in all forms, and present all manner of appearances, as of cones, ridges, fathomless seams or cavities. No convulsive action has shattered these elevated, shell-like craters, cones, ridges, in the least degree; no deluging rains, sweeping torrents, mighty winds, or surging waves, have acted upon them for their disintegration. They remain mighty monuments of low conditions.

Disintegration of this ejected matter has only occurred, where, as before remarked, volcanic debris, as fragments of the few species of crystalline rock developed during the first era, were intermixed with the lava; other sections present, at this period, precisely the appearance they presented at the period when the volcanic action ceased, and the disgorged elements cooled.

Mountains of lava, plains of lava, lakes and seas of lava, so to speak, is the order. What benign influence shall ever be exerted to convert these lava plains into prepared soil; these lava mountains into mineral beds? The answer is—None! None! Moon is forever accursed, in the sense, that it belongs to the low grade of planets; its matter can not progress, there being no perfectly organized life-elements circulating in the organization of the planet. Volcanic action has been wanting whereby to create proper surface conditions,

from the lack of energy of external and internal elements. External action was necessary to produce internal, and internal, to produce external; both being wanting, no action could ensue;—stagnation must necessarily be the order with the planet while it exists.

The dark sections of Moon's surface visible from Earth, are the lava sections—the larger ones. These sections are utterly dark, and are only visible from Earth through the agency of light and atmosphere eliminated by other sections—the developed sections of the surface. Electric elements eliminated from lava surface alone, can not form atmosphere; therefore, where such sections are large, the atmosphere over them must be exceedingly rare during the most active periods, as it must be supplied by the sparsely scattered developed sections, by the aid of which the smaller lava sections are visible as illuminated surface. Equatorial, and adjacent regions, exhibit the highest conditions to be found upon the planet; while the polar, and those adjacent to them, present the lowest; equatorial matter being of the highest grade, of all planets, and polar, the lowest, from the situation of currents of high and low grade of matter, as the reader already understands.

Electric action of Moon's matter, during all eras, whether of rest or action, is sufficient to render it subject to the attractive forces of the solar system. The grosser electric currents which are eliminated from its lava surface, find their affinizing elements in the electric currents of all the formations of system with which they come in contact; thus placing the planet in equal subjection to the laws of the system with any other planet. Its sphere of attractive influence connecting it with contiguous formations of the solar system, its electric currents are transmitted to these formations, as those of these formations are to it.

Spheres of attractive force and influence serve the purposes of a system whose bodies are condensed to the degree that the

finer electric fluid can be eliminated from them, by acting as the medium for the transmission of this higher element from body to body, throughout the system; which element is the only link by which the bodies of the system so condensed, are connected. Spheral matter is like the gross metal of the wire which transmits a finer electric fluid through it by means of its own electric element, latent within. Condensed bodies, as suns in the later cometary stages, and planets, are only connected, as bodies of a system, or the universe, as above remarked, by means of affinizing currents of substance through the medium of spheral matter; the attractive forces of such bodies are propagated through these currents, as the attractive forces of rare cometary bodies are propagated through spheral matter without the aid of evolved electric fluid; or more properly, the finer electric fluid.

The quality of electric fluid above mentioned, is not that quality which eliminates atmospheric light, or makes a distant sun, or planet, visible; neither is it that quality which institutes high conditions on planetary surfaces. It is of a grade affinized, both to planetary and spheral matter; which constitutes it a lower grade than either the above mentioned; yet it acts as an aid to the higher currents, both for their elimination, and in their action for the production of soil, and higher forms dependent upon soil.

As a body progresses, its eras, both of rest and action, are more active eras. Electric action must be continuous upon a planetary body in all eras, as planetary matter is of such a nature as to insure the constant elimination of electric fluid from it; and the higher the quality of the matter—the more advanced the planetary surface, the more intense will be this action in all eras. The subsidence of this action, which institutes eras of rest, arises from the partial enervation of planetary matter by the continuous action of the past era—from a lack of the positive element; which condition being the condition of all bodies of the individual system, the uni-

versal system, coterminously, the flow of currents from planet to planet, from sun to planet, is less energetic than during the period when the forces are in equilibrium. An era of rest, which in Earth's early cometary stage signified such utter inaction as the mind of man, uninstructed in the science of universal development, can not appreciate, signified in its early planetary stage an era of comparative action—action compared to that of those first cometary eras; signifies now, an era of intense action, compared with those early planetary eras. It is, nevertheless, subsidence of electric action, as in former eras, which, at this stage, inaugurates periods of rest, be they great or minor periods; and as then, such subsidence as can occur from the existing condition of the matter of the body, and other bodies of the system.

Moon, although a solidified body—a planet, is in such low condition, that its periods of rest are much more marked than those of a planet of high grade, at this stage; yet much less marked, than during former stages. Sufficient action existed upon Moon's surface during the era of rest just passed, to prevent the entire re-absorption of elements at any period of the era. It possessed sufficient of atmosphere, or of eliminated atmospheric elements in partial combination, and higher electric fluid, at all periods of the era, to insure the elimination of atmospheric light in sufficient abundance to make it the luminous body it has appeared since it has been an observed body from Earth; or since the historic period; yet not sufficient to prevent the entire destruction of all animal and vegetable life; as during the whole era no forms of animal, or vegetable species were organized. Since the inauguration of the present era, something has been accomplished toward the restoration of higher conditions by the institution of water-beds, wherein water in small quantities exists for the sustenance of the lowest forms of vegetable and animal life which the era can develop upon that planetary surface. As yet, the quantity of water formed is too small to exhibit

any signs of its existence to observers at Earth's surface, by the formation of vapor in Moon's atmosphere, were that atmosphere of a quality to originate, to sustain such vapor. Of atmosphere, there is sufficient for the existence of the water,—such a form of water as only exists where atmospheric elements are in semi-combination ; such a form as only exists upon Moon when its ever imperfect atmospheric elements are in semi-combination.

The promise is, that during the years, the centuries, the ages, to come, of the present era, Moon shall shine with ever increasing light ; that, whereas, it now sheds a dim radiance over the night when reflecting Sun's light, and in the absence of that light is invisible, in the ages to come, when its atmosphere shall have become as perfectly organized as is possible, it will shed a radiance, which, though dim, compared to that of the "greater light," shall yet be sufficient to dispel darkness when it reflects Sun's light, and to render itself visible when not reflecting that light. It shall, with three-fold radiance, illumine the nights of its primary, while that primary shall, with three-fold power, repay its light in blessing.

Moon's pale light is an incongenial light to all the higher classes of forms at present existing upon Earth's surface,—an unhealthy light. It is an element affinitized to lower conditions than have existed upon Earth's surface since the early eras of its planetary stage ; when all surface elements were low, and when the lowest orders of the animal and vegetable species were in existence. The character of Moon's light during those early periods, was its present character ; or so nearly that, that no appreciable difference exists. Then, this light was an agent slightly operative for the advancement of conditions upon Earth's surface ; since that period—since the existence of higher conditions, it has been more damaging than otherwise to all conditions of this surface. In the rare quality of this light, is observed a wise provision.

of nature ; as, were it dense, from its low character, it would prove a destructive element in Earth's atmosphere ;—an element destructive to the growth of the higher forms of animal and vegetable life, as well as to man ; to whom it would be a pestilential scourge—a death-dealing miasma.

In the order of nature, primaries progress out of the influence of their secondaries,—progress beyond the reach of the deleterious influences of their light, and low electric currents ; in the sense, that these become unaffinitized to those eliminated by the primaries, to that degree, that they have but little effect in producing disease, and the other more apparent irregularities attributable to the influence of the electric currents instead of light. However, enough of reciprocation by primaries to determine the greatest amount of action of secondaries possible, is the order, in all eras ; matter of them being only susceptible of a low degree of action in the most advanced era. Moon's electric currents operative upon Earth in all ages since its existence, have had the effect to disturb established conditions ;—to disturb atmospheric equilibrium to the degree, that storms have been aggravated ; also, subterranean elemental action, and the conditions productive of epidemic diseases among animals and man, since these have existed upon Earth. Such effects have been most apparent in the most active periods ; while, during the most inactive, they have been imperceptible. The present era, being one of action, witnesses the effects of Moon's electric currents more apparent in Earth's atmosphere than at any preceding era. However, the parent is outgrowing the strength of the child,—is progressing with a degree of velocity so much beyond that of the offspring, that not many short periods will elapse before Moon's disturbing influence will be less perceptibly marked in Earth's atmosphere ; and not many of the next longer grade will elapse before this influence will be inappreciable in that atmosphere, in its effect to destroy

atmospheric equilibrium to the degree that storms, &c. will result.

What of disturbance shall then continue to result in Earth's atmosphere from the action of these currents, will be productive of apparent beneficent effects, in that it will operate to aid in depopulating Earth of the forms of animal and vegetable life of which it is outgrowing the need.

Earth, Moon's sun, in an appropriate sense, acts less the part of a sun to it, than does Sun; that body being of such vast proportions compared to Earth, and at such a distance, that its electric currents can operate with greater force than can those of Earth; a sun of such small size, though at such a comparatively short distance. The preponderating size of Sun overbalances, by far, the diversity of distance of Earth and Sun. Earth's electric currents operative upon Moon, fail to eliminate sufficient light to make it a visible object. As before stated, in the future of the present era, Moon will become more of a reciprocator of light to Earth, than during any former era; as Earth's more powerful electric currents operate upon it to elicit, with the aid of Sun's currents, all there is of high elements in its atmosphere, its soil, or its minerals.

Has the element light always been rare in Moon's rare atmosphere, the element heat has been rare to a degree proportioned to the rarity of atmospheric light; as atmospheric heat is an effect of chemical action of atoms of atmospheric light.

All conditions fitted to each other, is nature's maxim.

Had Moon's surface matter been as cold as its atmosphere, no forms of animal or vegetable life could have been produced by that surface. The law has been reversed in case of Moon—the law determining that the higher the grade, the more stable the organization. This law is illustrated thus: Atmosphere is a higher form than water, and a more stable form; water a higher form than mineral forms, and a

more stable form. This is the law on the higher grade of planets, while with the lower grade, the reverse is the law; atmosphere is more imperfectly organized, and more unstable than water; and water, than the mineral forms. This operation of the law has permitted the production of the low grades of animal and vegetable forms enumerated, by Moon. Moon's crust is a partial conductor of internal heat to the surface, and its atmosphere being nearly a non-conductor of this element, having been in all eras, it being of such imperfect organization, heat has existed at the surface for the production and maintenance of the lowest classes of forms; classes, such as only the lowest conditions, as of warmth and light, as well as of other conditions, can produce and sustain. Moon's atmosphere when best organized is cold, emphatically; must be, when organized the best that is possible from the grade of the planet; and whatever of animal and vegetable life is ever produced upon it, must be produced by the aid of surface heat. That rare heat is conveyed to the surface from the internal mass of still volatile, still heated substance, by the agency of the imperfect forms of minerals composing the crust.

Were it not for the fact, that Moon's atmosphere ever has been a non-conductor of heat, Moon's entire mass would have been, ere this, solidified; ere this, the planet must have crumbled, its mass being cold, and susceptible to no agency but that which must disintegrate. By the agency of heat are elicited the elements of matter which counteract the effects of atmospheric action. Surface matter of all planets of high grade disintegrates by the force of atmospheric action; yet the constant elimination of elements from the mineral forms of such a planet, causes the re-organization of disintegrated forms—the establishment of new mineral beds in place of those lost; creates new soils in place of those lost; while the constant action of electric forces of chemical agents, forbids the exhaustion of internal heat by means of

atmospheric agency. Lava, with the lower classes of crystalline rocks, constitute the substance composing Moon's crust ; which substance is porous, and susceptible of being the conductor to the surface of the low form of the electric fluid which is generated by the internal mass ; which form, in the higher grade of planets, escapes through volcanic fissures, and from geysers, or periodically eruptive springs. Convulsive action of Moon's internal elements is wanting from this fact, combined with the condition of these and external elements. Eruptive action resulted in a single era from the fact, that sufficient energy existed in the mass of volatile matter composing the mass after the crystalline crust had been formed, to permit the grade of volcanic action which resulted through a portion of one era ; or, until a certain class of elements had been discharged. With the elimination of this class, all energetic action of the internal volatile mass ceased ; henceforth, it existed as heated volatile matter, only by sufferance, as it were ; it existed as such, only from the fact of its isolation from any force sufficient to draw from it the remnants of its developed life-forces.

Had Moon possessed a perfectly organized atmosphere, being of the low grade of planets, its disintegration, ere this, would have instituted destruction in its system ; nay, were it possible that a secondary of such a system could possess such an atmosphere, Moon's system could never have existed ; disorganization of the universe would have resulted from the disorder incident upon such a catastrophe as the disintegration of a form of such a character, ere the period of Moon's development. Again : Had Moon been a planet of high grade, and occupying its present position in the system, equal disorder would, ere this, have resulted to its system ; and equal disorder would have resulted in the universal system, ere the existence of Moon's system, had it been possible that any secondary in corresponding position to Moon, could be a planet of high grade.

High electric conditions at Moon's surface must induce the elimination of a perfected atmosphere; one susceptible of eliminating light in quantities proportioned to the amount of the electric fluid received into that atmosphere from Sun and Earth; and heat in proportion to the amount of light. Were Moon a perfect recipient of Earth's electric currents, Earth would be a sun to it, in the sense, that its atmospheric light would be ten-fold more than at present, while its heat would be in a proportion entirely incomparable with its present amount; being in proportion to the quantity of light in an approximate geometric ratio.

Were it possible that Moon could be a perfect recipient of Earth's electric currents, it would be indispensable that it be also a perfect recipient of Sun's; and being such, the amount of its light and heat, the direct product of these currents, as compared with the present amount, the product of these, would be so much greater as to produce conditions utterly incompatible with the existence of the planet. The circumstance of the correspondence of the orbital and rotary motion of the body, determining that one hemisphere be perpetually toward the primary, would cause that hemisphere to be, during the nights of the planet, exposed to a degree of heat sufficient to prevent the cooling of the surface, which might occur were both hemispheres alternately exposed to the primary. This would cause disintegration of all solidified surface of that hemisphere in a short period, were it possible that surface could permanently solidify under such circumstances; which could not possibly be.

Speculations as to what would have been under other than existing circumstances, are only profitable as they lead to the recognition of the wisdom of the plan of the Divine Architect, who in instituting systems, so instituted them, that the highest good should result to the systems themselves as well as the individual bodies of the system; and to the individual bodies as forms, as well as to all forms upon the surfaces of

these bodies. In the institution of this plan, the development and perfecting of the race of man was the end in view ; and all circumstances were so ordained, that the great end might be answered.

The secondaries of the solar system, like the bodies of the asteroidal system, are seeming abortions, in that they have never progressed beyond the condition of planets of low grade—in that they fail in the production of high surface conditions ; high vegetable and animal forms, and man. Yet this is only seeming, as they, like the asteroidal system, perfectly serve the purposes of the system—the ordained purposes ; which purposes are as important as those served by the asteroidal system, or, indeed, any planetary body of the solar system. Of necessity planets of low grade, they serve the purposes of the system by aiding, in that capacity, the progressive development of the primaries ; without which aid, the primaries could not perfect their motions, or forms, or surface conditions. Reciprocal justice is a law of nature, plainly discernible in the method of the institution of the systems of secondaries of the solar system. If law has determined that these secondaries, as forms, have suffered from the premature evolution and condensation of their matter, the primaries have suffered in an equal degree ; if law has determined their preservation by the very fact of this low condition of their matter, it has also determined, by the same law, the preservation of the primaries. It is a law of nature, that suffering is inducive of progress, whether it be of high man, or lowest forms of matter ; as suns ; and it is easy to trace the action of this law in the progressive development of systems of the order and size of the solar, where contingencies are imminent, and where secondaries prematurely develop.

Sun, the central body of the solar system, is in its fifth planetary era. Its surface is developed to that degree that continents exist—the higher form of continents, termed con-

tinental plateaus ; also the various species of animals and vegetables peculiar to this era, and this form of continents. The carboniferous era is in progress upon the planet. Its mountain ranges are broad, elevated ridges, and volcanic ; its table lands are rugged, rocky surfaces, whereon a soil is being deposited and fitted for the production of higher forms of vegetation than now exist upon the planet ; its low lands are gorges or marshes wherein is being deposited debris, or sediment for the manufacture of soils for future use. Its atmosphere is humid and vapory, deeply carboniferous and bituminous. The highest vegetable forms of Sun are the higher order of ferns, the lowest order of conifers, and the higher orders* of cryptogamous plants. The highest animal species is the saurian.

Sun's atmosphere is sufficiently transparent to exhibit the condensed body through it, to observers on Earth's surface. This surface, like that of Moon, and other bodies, exhibits to the observer dark spots. These spots, like those of Moon, are sections of lava surface. In Sun's equatorial and temperate regions there, at present, exist extensive tracts of lava surface—surface of too low quality to emit light by the chemical agency of the electric fluid ; thus they are visible through Sun's lighted atmosphere as dark spots. These spots are variable as seen from Earth's surface. They disappear and re-appear ; contract and expand ; presenting the appearance of clouds in the luminous atmosphere, whose sharp outlines are bounded by a penumbra, which, when the spot has entirely disappeared, usually remains to mark its position. These appearances result from atmospheric phenomena in the localities of the lava surface. That surface emitting atmospheric elements in insufficient quantities to form an atmosphere, a partial vacuum exists over it, to which tend atmospheric currents, until the equilibrium of the atmosphere is restored. Being restored, a vacuum is again produced by the absorption of atmospheric elements by the

surface—a surface which absorbs more than it emits, consumes more than it produces. The vacuum being again produced, spots again become visible through the rare upper strata of Sun's atmosphere; which upper strata are unaffected by the process below, and which are too rare to present that surface as luminous surface; as would be the case did dense atmosphere extend over the whole surface; as is the case when currents of dense atmosphere press in to fill the vacuum.

Sun's matter being planetary matter of high grade, spots upon its surface are not permanent, as those upon Moon. The surface now visible as dark spots, is developing surface; consequently, these spots must disappear entirely from Sun's surface. Others will succeed in other localities upon this surface, of less extent, and less in number. The fifth era is that in which a planet of high grade presents the largest sections of low quality of surface; and the era in which it presents this surface in equatorial and temperate regions.

Volcanic action at Sun's surface is visible to observers on Earth through the medium of its atmosphere. Volcanic forces are excessively active at present, upon Sun; its mountain ridges are also very elevated. Immense craters exist, and these in great numbers, in perpetual eruption; whose blazing fires, and mountains of sulphurous smoke, mingled with gaseous substance, combining together, rise to great heights in the atmosphere; and are of such voluminous character as to be visible by telescopic vision, to observers upon Earth.

In no respect does Sun differ from any other planet of the solar system, save that it is in an earlier stage than any other of them; being of a grade lower. The rarity of its matter, does not constitute it a diverse planet in surface appearance, neither does its character as Sun to the system. The quality of rarity only determines the greater length of its eras—determines that the bodies of its system shall greatly outstrip it in the progressive race. All surface appearances of planets

of whatever grade of density, are similar ; being in the same stage. Its luminous appearance, its character as a dispenser of light and heat to the bodies of the solar system, arises from the voluminous character of its electric currents. Being a body of such immense size, and at such proper distance from the bodies of the system, it dispenses a sufficient quantity of the electric fluid to every body of the system to constitute it a positive sun to those bodies.

A body is rendered visible by the atoms of light which are conveyed to the eye with the electric currents which flow from that body. This fact originates the erroneous idea, that light in sufficient quantities flows from Sun, to supply light to the bodies of the solar system. There is only sufficient supplied in this manner, to render its outlines visible ; insufficient to serve the purposes of the system in the slightest degree. These atoms permeate the electric fluid which disperses itself over the entire lighted hemisphere, thus rendering Sun a visible object over the entire hemisphere. Laws governing the transmission of the electric fluid are precisely those which have been discovered as governing the transmission of light, through the atmosphere, or other media ; light being the attendant, so to speak, upon the electric fluid. This fluid passing with such unimaginable speed through Earth's atmosphere—through all media, and acting chemically for the evolution of light from the atoms of this atmosphere, it is as though light itself were the fluid transmitted with electric speed through the atmosphere—through the intervening media between Sun and Earth.

Atmospheric light is the direct result of chemical action of atoms of atmosphere and of the electric fluid from Sun, passing with electric speed into, and through the atmosphere. Friction of atoms of these substances—such friction as is induced by electric speed, results in the elimination of this element from atmospheric air ;—an element of such a nature as to serve the purpose of a medium for the transmission of a

lower grade of the same element, or character of substance through the atmosphere.

From the method of construction of the organs of vision of man and animals, these organs are peculiarly susceptible to the action of the element light, and are acted upon by it with greater power than any other part of the system. The peculiarity of the structure of the eye consists in the character of the matter composing it. It is composed of matter of all grades of physical substance of the quality that eliminates light; and therefore it may take cognizance of all grades of physical substance, when magnetic elements from these grades come in contact with it through the medium of atmospheric light, being closely affinitized to them. The human eye is affinitized to the highest quality of all grades of matter, therefore, it appreciates light from this quality of all grades. The eye can gaze upon an object too repulsive for the mouth to taste, the nostrils to smell, or the hands to touch; indeed, it may gaze upon an object without detriment, whose very touch would be poison to the system. This fact proves that there is a magnetism in the eye affinitized to the magnetism of the object; while the fact, that the eye may gaze upon all objects unharmed—all matter, proves that it possesses a magnetism affinitized to all grades of matter. Animals of different grades appreciate lower grades of light, according to their grade; their organs of sight being affinitized to lower grades of matter than those appreciable to human vision.

Light of different grades, as an element, is appreciable by other substances than those forming the eye; and appreciable as grades of it affinitize with grades of other substance. Light elicited by Moon's electric currents is a deleterious light; whereas, that eliminated by Sun's electric currents is a healthy light. These facts prove that there are grades of this quality of the magnetic fluid; which grades are eliminated according to the quality of the electric fluid operating for their elimination. Sun's electric currents being of high qual-

ity, a high grade of this magnetic fluid is eliminated ; Moon's, being of low quality, a low grade is eliminated. Light eliminated by currents from various substances in combustion, is of various grades, according to the quality of the substance eliminating it.

Different grades or qualities of the element light differently affect the organs of sight ; therefore it is, that they are said to be of different colors. Atmospheric light, of highest quality of any eliminated by a body, is a whiter light than any other ; while the various grades of surface substance emit a color of light qualified according to grade. Suns in the planetary or cometary stages, emit colors of light qualified according to the stage. Earth's atmospheric light is silvery white ; that of sun is white, but of lower quality ; both qualities are inappreciable.

The color of a sun's light transmitted to the eye, is modified by the color of its atmospheric light ; as surface light mingles with atmospheric, and is transmitted with this to distant vision. Sun is in a comparatively high stage ; its surface light is modified by its atmospheric into golden. Moon is in a low stage ; of surface light it has not sufficient to modify its atmospheric and Sun's reflected light, to any appreciable degree ; its light is of a silvery hue.

Some stars visible on Earth in approximate stages with Sun, emit the same colored light ; some more advanced, emit a shining silvery light ; others less advanced, being planets, emit a red light from the low quality of their surface substance. Some, being in the various cometary stages, emit a blue, or violet, and other shades. Thus, by the character of a sun's light, may be known the approximate stage of its development.

Circumstances of position and relation of the body observed to the one whereon the observer is situated, modify the color of the light of the observed body, in a greater or less degree. Is the observed body a positive sun, so termed, to the other, the color of its light is modified by the color of

the atmospheric light of that other, in a great degree. Is it a negative one, so termed,—a star, or a distant planet of the same system, it is modified in a degree, though in a much less degree. The great amount of atoms of Earth's atmospheric light intermingling with those from Sun transmitted to the eye, cause that light to appear whiter than it is—of a light golden. The less the amount of these atoms intermingling with those transmitted from distant bodies, the less is the color of their light modified.

Cometary bodies eliminating a low order of light, are invisible at the immense distances at which planetary bodies are visible; from the law regulating the transmission of electric currents of high and low grades, to high and low grades of surfaces.

Light is eliminated by atmospheres of every grade and quality, corresponding to the grade. Atmospheric light of a cometary body is of such low grade as to be vapory; light eliminated by the opaque atmospheres of bodies in the early planetary stages, is of a low quality compared to that eliminated in later stages, when the atmosphere has become semi-transparent, or transparent. Atmospheric light of all grades is, however, a medium for the transmission of surface light of its own affinitized grade during all cometary and planetary eras; and the electric fluid is a medium for the transmission of both atmospheric, and surface light of all grades of bodies to the same grades, be the atmospheres of each opaque or transparent. Surface light of cometary bodies is modified by their atmospheric, to observers, wherever these bodies are visible; though not to an equal degree that surface light of planetary bodies is thus modified. Sun's atmosphere is semi-transparent during the present era; this fact does not prevent the perfect transmission of its surface light with its atmospheric, to Earth and all other bodies within its influence, by the medium of its electric fluid.

The quality of the electric current proceeding from a body qualifies the color—the quality of its light.

The great quantity of light eliminated in an atmosphere by the electric fluid—the direct rays of this fluid, is what renders a positive sun such an excessively luminous object; an object which the human eye is unable to gaze upon without injury to its constitution. The undue amount of light between the eye and the object, and that light atmospheric, renders the contemplation of the object painful; as the eye is only constituted to receive a certain amount of light without injury to it.

Sun, “the great source of heat” to the bodies of the solar system, supplies this element indirectly, as it does light; and that also by means of its electric currents. In a sense, each planet of the system—of all systems, is self-sustaining in matter of light and heat; and yet, in a sense, dependent upon the central body. Heat is the product of chemical action of atoms of light, and light, the product of matter pertaining to the planet, either atmospheric or surface matter; in this sense is a planet the source of its own supply. The electric currents from the parent body operate upon that planetary matter for the elimination of light, which light eliminates heat; in this sense are these bodies dependent upon the parent body for the supply of these elements.

Atmospheric heat is the effect of friction of atoms of light. Light, as a magnetic element, traverses the atmosphere with more than electric speed; and in its passage, chemical action of atoms of rays or beams of it passing and repassing each other in every direction, as they are attracted to different objects in different directions, has the effect to induce heat; which is an effect of rapidity of motion of commingling atoms of all elements composing the atmosphere; magnetism, electricity, and the grosser atmospheric elements. Heat is appropriately termed an element.

Absence of light is absence of heat; rarity of light is still greater rarity of heat.

Light is the first form of appreciable substance; for ages cometary bodies revolve as masses of gross light; and action of atoms of this gross substance first eliminates heat; which element aids in the elicitation of other substance—higher electric elements. These propositions, combined with the one which affirms atmospheric light to be magnetic—a high grade of the electric fluid, illustrates the oft repeated proposition, that matter of every quality is graded. It also illustrates the proposition, that combination of atoms of the grossest electric fluid formed substance—was the evolution of matter; affirms the proposition, that all substance is accumulation of atoms of gross electric fluid of different qualities and grades. Light was the first form of appreciable substance; being the highest grade of matter, it first accumulated and became appreciable. It was positive to the next grade that accumulated, or was evolved as substance after heat had been developed in matter by the method described. Light is positive to all other substance—is the highest appreciable physical element; and heat, its sure attendant, the originator of all physical elements negative to this.

The physical sense of man can not discover the processes of nature in the elimination of substance—the elements; therefore man is prone to mistake these processes; to aver them to be other than they are. Sun rises in its splendor, dissipates the gloom of night, and spreads light and warmth over the earth by its beneficent beams; and man says: “Behold what a storehouse of light and heat is this our sun.” Philosophers wonder whence this inexhaustable store, discovering no possible principle by which a body can supply its system with these elements—no possible law for the existence of a body so intensely heated as Sun must be, to supply heat to its system by their calculated method. Vaguely dreaming of atmospheric agency in the production of light and heat, they yet offer no theory but the generally received one, that

these are direct emanations from Sun ; the atmosphere being only the medium of their transmission to planetary surfaces. When philosophers are at fault, how shall the unlearned decide ? Clairvoyance is a gift vouchsafed by nature to individuals of particular temperaments and constitutions, by means of which, they may study the secrets of nature—may discover the action of the invisible elements, the life-forces of nature ; therefore men are not left without the means of studying nature's most intricate methods. Are the discoveries of the astronomer, the chemist, of value to man ; not less so are those of the clairvoyant. Are the telescope and the microscope, products of art and of nature combined ; so is well directed, cultivated clairvoyance ; and if men prize the former, and avail themselves of discoveries made by their means, they should no less prize the other, and avail themselves of discoveries made by its means. Man has no more right to deny the discoveries made through clairvoyance than those made through the telescope or microscope ; it ranking with these as a product of natural law, and therefore its discoveries not possible to be set aside. Men can not truthfully say, "We have no means of testing the truth of principles, of propositions, relative to the action of nature's invisible agents ;" they may trust the revelations of the clairvoyant as well as those of the telescope ; which latter, they do not pretend to deny from want of personal observation.

The educated clairvoyant may behold in the beams of the morning sun the grades of the electric fluid, and their action upon each other ; also the effect of that action. He can behold atmospheric atoms eliminating light ; and he may behold that the effect of the rapidity of this action is the effect of heat ; therefore, he unavoidably arrives at the conclusion, that chemical action of atoms of light produces an effect, which is heat. Thus as he observes—as he perfects his clairvoyant sight by practice, by art, he may discover the most intricate processes of nature ; and arrive at just conclusions

concerning the methods and the results of these processes, by the use of his reasoning faculties.

The highest form of atmospheric light, is substance eliminated from atoms of grosser atmospheric light to act as a medium for the transmission of a corresponding quality or grade of surface light. Thus all grades of atmospheric light act, there being many, upon the principle of the gradations of matter—act as media for the transmission of corresponding grades of surface light; each grade of surface matter having its affinitizing atmospheric. Light of the various grade, the indispensable attendant upon heat, is the substance eliminating heat in all bodies. That an object is dark, is not equivalent to absence of matter of light; though it is absence of the higher qualities of light; light being of all grades, all colors; and surface substance emitting all the colors of light from transparent white to black; atmospheric, only emitting what are termed the seven primary colors. The eye beholds the landscape clothed with green; this signifies that green is the color of the light transmitted to the eye through the medium of atmospheric light; it beholds the variegated colors of the flower garden, the sombre hue of the soil, the iron, the lamp-black; this signifies that the eye takes in atoms of light of all these various colors transmitted from the objects to it.

The heated iron exhibits no action of its atoms to the physical eye; yet, action of that substance in eliminating heat is the same as action of atmosphere to this end. It is the inappreciable electric fluid of the various qualities circulating in the iron whose action eliminates the heat, as it is the action of these in the atmosphere which eliminates this element. The action of the fire upon the cold iron is the action of electric fluid upon electric fluid; the heat applied to the iron excites action of its electric fluids; which action, as the iron becomes more and more heated, is assimilating to the action of the element surrounding it; which are the evolved

elements of coal, wood, or some other inflammable substance in combustion. Thus heat acts upon all substances for the elimination of heat, as it may be said; but, in appropriate terms, thus light acts upon all substances for the elimination of heat, according to the above exposition.

The electric fluid is dispensed by all bodies for the use of all others within its influence, according to size, distance, and affinity; and thus light from suns is transmitted to each other; thus suns at inconceivable distances from other suns are rendered visible; the electric currents, like cords of love, extending from sun to sun, to inconceivable distances, and personating the love of the Divine Father in binding these bodies indissolubly together; binding in one the infinite universe. Thus it is, that suns are visible as minute stars; the small quantity of the electric fluid that is received by a body at such a vast distance from another, making it appear in size according to the minute quantity of light transmitted with the minute quantity of the fluid. Beautifully illustrative of the Divine Omnipresence of love, is the method of the distribution of the electric fluid among the bodies of the universe. The most minute form is the recipient of as much of this fluid as is necessary for its use, as is the most vast; no nook of the universe is so remote from the central body, but that it is the direct recipient of electric influence originating with that body; direct, in that, law forbids that any can fail to be the recipient of electric currents from parent bodies, by the established law of organized systems.

A sun, in the appropriate sense, signifies a dispenser of the electric fluid; in which sense, all bodies are suns; all being dispensers of this fluid. A sun which dispenses sufficient of the electric fluid for the use of another, as of a system, is a positive sun to that body or system. In this sense is Sun a positive sun to all the bodies of the solar system. A sun which dispenses insufficient of this fluid for the use of a body or system, is a negative sun to that body or system. In this

sense Earth is a negative sun to its satellite, and the other bodies of the solar system; and these bodies, in the same sense, are negative suns to it, and to each other. Bodies of small size are never positive suns to the bodies of their individual systems; the bodies of these minute systems being dependent for a sufficient supply of the electric fluid upon the central body of the parent system—the grand parent; as the secondary formations of the solar system, and all systems of its size.

Sun's office is to supply the electric fluid generated by itself by the aid of the parental electric fluid, as before described, in sufficient quantities to each body of the system, to aid in the elimination by that body, of sufficient light and heat to supply the needs of the body. Being of sufficient size, it perfectly answers the end in view.

Sun's atmosphere is of a depth corresponding to the size of the condensed body. This atmosphere is visible around the condensed body when Sun is eclipsed; however, its outlines are indistinguishable, there being another medium which is also visible around Sun when it is eclipsed, causing greater apparent density of its real atmosphere, and its apparent indefinite extension beyond the surface of the body. This medium is the dense stratum of unevolved matter within which sun is situated; and which is most apparent just outside Sun's densest strata of atmosphere. This is sufficiently dense to be actually visible, in the following sense: it is a medium of such density—such quality of attractive force, as to retain the most imperfect atoms of the electric fluid, and with them atoms of light, as this fluid passes through it in its progress to the various bodies of the system. These atoms can only be retained by it for a short time, being attracted, and then repulsed as being too unaffinitized with this low grade of matter to come in close contact with it. Such vast quantities of this fluid are continually passing through this medium, that the slightest retention of any of

its atoms with their accompanying atoms of light, will cause a visible sphere of light to appear where this spherul matter is most dense. In this manner does this and the next outer stratum of unevolved matter become visible to Earth's inhabitants, at certain seasons, in the form of a cone of light in the atmosphere in the neighborhood of Sun after its disappearance below the horizon, and previous to its appearance above it. This phenomenon is termed zodiacal light, by astronomers, and is an unexplained phenomenon.

The existence of a resisting medium, so termed, within the solar system, has been conjectured by astronomers, from the existence of such phenomena as zodiacal light, and motions of cometary bodies within the system. It is mere conjecture, however, with them; no definite conclusions as to the quality of this supposed medium, its origin, or its purpose in the system, having been arrived at; and the existence of such a medium, considered as immaterial to the existence of the system, in their calculations upon the laws governing the system—binding it together and constituting it a whole, whose every form exerts its appropriate force upon every other form of it, according to the Newtonian theory of attractive force. The existence of a medium in the system as the propagator of the forces of the system, is as necessary to the stability of the system as the forces themselves; although this fact seems to have been overlooked in the Newtonian theory of gravitation. The existing medium in the solar system—the medium which propagates the forces of the central body to the other bodies of the system, which connects the system with other systems, constitutes it a form of the universal form—as the reader understands, is the sphere of unevolved matter, constituting Sun's sphere of attractive force and influence—the body of the solar system.

The matter composing this medium—this sphere, is unevolved, and unevolvable by any power which can be brought to bear upon it, during the present period of action; according

to the law already enunciated governing the evolution of systems. It is also matter of Sun, in the sense, that it rotates with it around the center of gravity of the system. As matter, it exists in stratified form within all the individual spheres and bodies of the system; extending from the limits of the repulsive sphere of the central atom of the system to the boundaries of the systems surrounding the solar, without reference to the evolved matter, or forms of the system; which matter is so slightly appreciable by it, that it remains as undisplaced matter of the twelve strata of the system.

Unevolved matter is so utterly inappreciable to man's physical senses—the condition of unevolved matter, that it is incomprehensible to him how this matter can exist as undisplaced matter in the system, the system being occupied by other spheres of unevolved matter, and solidified bodies. It is by the law of attractive and repulsive force that this is possible. Substance is simply an accumulation of atoms of like quality; and consequently, these atoms being like matter, can commingle with atoms of evolved matter in every stage—either volatile, or solidified.

Atomic spaces being inappreciable by physical sense, it is incomprehensible to man, how fluids, or currents of atomic substance, can circulate through solidified forms. Yet these spaces exist, as man knows from the existence of life-forces within all solidified forms. It is upon the principle that atoms of the electric fluid circulate through physical forms by virtue of the law of affinity, and by means of atomic spaces, that this unevolved matter permeates all physical substance. Its affinity to the lowest quality of atoms of all physical substance, causes it to permeate this substance—occupy unoccupied atomic spaces existing in all forms of solidified and unsolidified substance—as it is the affinity between the highest atoms of this physical substance and the electric fluid, which causes this fluid to permeate physical substance—thus occupy unoccupied atomic spaces.

This matter rotates around the central atom of the system, by virtue of the propagated force of that atom, by the same law that fixes the orbital motion of bodies of the system. Atoms are infinitesimal bodies, and, as such, are subject to the laws which govern bodies. Juxtaposition of spheres of all atoms composing this sphere of any sun, causes them to rotate in equal time around the central atom, according to the exposition of the rotary motion of cometary bodies in the preceding chapter.

As mind can not appreciate infinitesimals, so also it can not appreciate infinities. As it can not appreciate the Infinite, so it can not appreciate the forces of matter which are derived from the Infinite. Attractive force propagated from the central atom of the solar system—which atom rotates but once in twenty-five days—to the outer stratum of the system, causes this stratum to rotate with a velocity as inconceivable to finite comprehension as is the extent of the universe, or the quality of motion of outer atoms of it around its central atom. Atoms obey forces affinitized to them; such forces only can they appreciate; and appreciating them, their obedience to them is as prompt, be they atoms of lowest grade, as is that of atoms of highest grade to their affinitized forces.

The electric currents which are propagated by means of spherul matter through the system—the cords binding the system in one—are propagated with a speed corresponding to the grade of the fluid, and the spherul matter. Sun's light transmitted to Earth's surface, by means of its electric currents, reaches that surface, it is calculated, in eight minutes from Sun; thus Sun's electric currents occupy that length of time in passing to Earth.

The grade of a fluid eliminated by a body being affinitized to its sphere, the grade of motion of the fluid propagated through the sphere, is the grade of electric motion of the sphere, or of the central body of the sphere, so termed;

which grade is numbered to correspond with the number of the sphere. Thus:—Sun's sphere being of the fourth grade, the grade of motion of Sun's electric currents is the fourth. Earth's sphere being of the fifth grade, the grade of motion of Earth's electric currents is the fifth. The grade of electric motion is the same of all the eleven formations of the solar system, they being of the same grade. The grade of motion of a fluid passing from a sphere of one grade into another, changes in a degree; but not in a sufficient degree to constitute its grade of motion, in that sphere, that of the sphere; thus:—Sun's electric currents passing into Earth's sphere, have their quality of motion modified in a degree; yet not in a sufficient degree to constitute it motion of the fifth grade. Earth's electric currents passing beyond its individual sphere, have their grade of motion modified, but not into the fourth grade. Grades of the fluid passing from sun to sun through spheres of various grades, find affinitizing elements in each sphere; therefore their grade of motion, though modified, is not changed in passing through these spheres.

The much mooted question, as to the reality of the existence of a resisting medium in the solar system—a medium capable of resisting the motions of comets, &c. and the quality—the approximate nature of that medium, might be settled by those who are speculating upon it, would they reason from the data they possess—from effects to causes, from causes to effects.

Cometary bodies, as they discover, are masses of gaseous, vapory matter,—matter of exceedingly low quality; and a medium which can resist the motion of such matter must be, according to the law of chemical affinity, of nearly like quality, or affinitized to it in a degree. Also, this medium must be an excessively rare medium, being an undisturbing one to all bodies of the system, save cometary bodies, and to those, except in the vicinity of the center of the system. It is

granted by philosophers, that propagating media are necessary for conducting experiments in the atmosphere, and that the atmosphere serves the purpose of a propagator of light from celestial bodies to Earth's surface. This is equivalent to granting, that without propagating media, forces can not be transmitted. As without the atmosphere, or an equally qualified medium, the surface would be the non-recipient of light from Sun, so, without a medium extending from Sun to the outer stratum of Earth's atmosphere, Sun can have no power to transmit light to that stratum.

According to the definition already given of attractive force, or gravity, as it is termed, this force is matter, and propagated by the medium of like matter. It fills all space, is the force—the matter, constituting the universe a body, in a true sense. Like the strata of matter of any solidified body, it is connected strata or matter—connected by juxtaposition of atomic spheres. Being graded, it acts in accordance with the law before stated, determining that grades of force shall act upon similar grades of matter. Is a force—a medium or element, being matter, propagated through atmosphere by the medium of atmosphere—that atmosphere being matter, so is gravity, which is matter, propagated through spheres, they being matter. Space may not be scanned by man in his physical condition; yet atmosphere may be; and the laws governing forces as propagated through atmosphere—dense and rare strata of atmosphere, can be calculated with accuracy. These laws in their modifications, their applications to different media, are the laws which govern the propagation of forces through all media.

The universal distribution of matter—the non-existence of vacuity, is what constitutes the Infinite Universe one; is what connects all matter with God. It is by law of tenure—the existence of media of an infinite number of grades, that God is constituted the center of His Infinite Universe; the controlling power of that Universe, spiritual and physical;—

as Sun is constituted, by means of a medium, the governing power of the solar system.

Sun's form is spheroidal ; its orbit elliptical. It oscillates in space, like the planets of its system, obedient to the disturbing influences of its parental system. The obliquity of its ecliptic varies as that of planets of the solar system varies ; its nodes recede upon its equinox as theirs do ; and it gyrates with more minute perturbations, as these do ; its periods of vibration, &c. being vast in comparison with those of the bodies of the solar system, which are, some of them, too vast to be comprehended by man in his present state.

These motions—perturbations, will be described, only generally, in the description of the perturbations of Earth ; which will be given as a type of those of all suns.

Perturbations, otherwise oscillatory motions of suns in space, arise from imperfection of form of those suns—of all suns of a system. It is appropriate here to remark, that suns or planets of separate systems do not act upon each other to cause perturbations ; it is the action of the bodies of the parent system upon a body which causes its oscillatory motions—the union of forces, termed disturbing forces, of all the bodies of the parent system, or the single forces of the separate bodies, which cause the various motions, termed vibrations, oscillations, and gyrations, of a single body, and of all the separate bodies of a system. Sun is operated upon by the disturbing forces of its parent system—the united disturbing forces of its parent sun and all its sister suns ; and by the single forces of neighboring sister suns ; the combined forces of the nearer sister suns and the parent sun, which cause its distinct oscillatory motions.

Earth is operated upon by the disturbing forces of its parent system—by the combined disturbing forces of its parent sun and all its sister planets ; and the single force of its neighboring planet, Moon ; the combined forces of Sun

and Moon, and the combined forces of Sun and the nearer planets, which cause its distinct oscillatory motions.

Disturbing forces, signify attractive force exerted by the protuberant part of a planet, or sun, upon the protuberant part of another turned toward it, distinct from the actual force exerted by that body as a whole, upon the other. This, the reader will keep distinctly before the mind, lest he confound the actual attractive forces of the system, so called, with the disturbing forces, so called. As the actual motions of bodies of a system determined by the attractive forces of other bodies, differ from the perturbations of bodies caused by the disturbing forces of other bodies; so attractive force differs from disturbing force. The one causes the orbital motion of suns, while the other causes their oscillatory motions; the latter being as necessary to the perfecting of a system, as the former; as much an ordained force as that; as will appear. Equatorial regions of all planets of the solar system are protuberant; no planet of that system being of perfect form. The spherical is the perfect—is nature's form of planets. Spheroids are such because matter of suns is volatile at first—subject to the laws of cometary motion. Condensing forces operating upon a body possessing rotary and orbital motion, always determine that suns solidify their surfaces being of the spheroidal form—oblate spheroidal. This is a general law operative upon all suns; there being no exceptions to it. The latter cometary eras complete the condensation of cometary matter to that degree that it obeys central force sufficiently to retain the form determined by rotary motion, not orbital. Centrifugal force, so termed, determines equatorial regions of forms whose matter is volatile, to be protuberant, according to the law that all atoms of a form seek to revolve around the central atom from west to east, or with the easterly or equatorial current.

The motion which determines this to be the form of the cooling planet, determines also the loss, by that planet, of

the true cometary form. Condensed to the lava stage, central forces operative upon it steadily for the acquisition of the true form, rotary motion causing that every section of equatorial regions, or those presented in the direction of motion, shall be alternately presented in that direction, in the opposite, and in other directions relative to that, and this continuing through the ages while the surface is cooling, orbital motion ceases to affect this matter so condensed, so operated upon by rotary motion, to cause the true cometary form.

Centrifugal force applied to atomic matter of forms in rotation, signifies negative force — the repelling force exercised by atom upon atom, equal masses upon equal masses ; the same force which repels worlds from centers when they are developed to be repulsive to a superior mass of matter. Central force of a body is powerful to retain all atoms of volatile substance within its sphere of influence, as central force of a system is powerful to retain all bodies of that system within its sphere of influence. Is orbital motion of suns regulated by central force aided by other forces ; so is orbital motion of atoms regulated by central force aided by other forces. Does a comet when in its rare volatile state pursue an eccentric orbit—an orbit which is parabolic, almost hyperbolic, and does this orbit gradually lose its parabolic form and merge into the elliptical, as the matter of the comet condenses—as it ceases to be a comet ; so do the independent atoms of this rare, volatile comet pursue eccentric orbits—orbits which are parabolic, almost hyperbolic, but which gradually merge into the elliptical as the cometary matter condenses—atomic spheres contract ; and which, like orbits of Sun, lose the elongated ellipsoid form as matter condenses to solidification, and assume the true elliptical form. And as orbits of suns, by the perfect action of the laws governing a system, cease to be elliptical, and become circular ; so will the orbits of atoms of suns, though these atoms are fixed by solidification, by the perfect action of the laws governing suns, cease to be

elliptical and become circular. The law is one determining the form of orbits, and of Suns or planets.

Volatile matter rotating as a sphere, always tends, in undue proportion, to equatorial regions, creating the spheroidal form ; whereas the spherical would be the form, were the body at rest. This arises from the nature of volatile matter, which, as signified here, is matter undeveloped to solidification. Volatile matter is of two natures, the one here mentioned, the other developed above solidification, properly speaking ; as for example: Lava is volatile matter undeveloped to solidification ; magnetism is volatile matter developed above solidification. The former is unqualified to obey, perfectly, the laws of attractive and repulsive forces ; the latter is qualified to obey, perfectly, these forces. A sphere of volatile matter, as lava, water, in rotation, from the undeveloped condition of this matter, will always be oblately spheroidal in form ; while a sphere of magnetism in rotation, from its developed condition, will always be spherical in form.

The nucleus of a comet is always observed to be nearly spherical, while the form of the comet may be parabolic, or elliptical. This arises from the nature of the matter of the nucleus, and that of the outer matter of the form ; the former being qualified to obey central force, and the latter unqualified to obey this force. All planets approach the spherical form ; some nearer than others ; this arises from the fact that central force is ceaselessly operative with other forces upon matter of planets, although their surface matter is solidified, to perfect their forms. Cooling oblate spheroids, solidifying their surfaces when their forms are very imperfect, centrifugal force continues to be modified by the progressive development of matter of the form, until the protuberant equatorial regions are modified—appropriately rounded ; and depressed polar regions are also modified ;—until it ceases as a force to disfigure the planet's form.

Planetary surfaces being, subsequent to the development of crystalline rock, watery to a greater or less degree through all the ages wherein the planet is perfecting its solidified structure—until the period when it has so perfected its surface that water only exists as subordinate to the land—the oblate spheroidal form is retained by planets during this period; though being gradually modified into the spherical as the developing processes continue—as convulsive action continues, and as oceans disappear, and seas and land assume their places.

It is a law of matter well understood by philosophers, that masses of matter whose atoms are free to move among themselves, invariably assume the spherical form, all circumstances being favorable. This observed truth—this law governing volatile matter at rest, constitutes the premises whereon may be based the proposition: That all matter, whether volatile or solidified, naturally thus arranges itself—seeks the spherical form, being in masses of whatever size, whether at rest or in motion. This proposition being established, it remains to establish its kindred one. That all matter in separate masses, or in a single mass, whether volatile or solidified, does thus arrange itself being left free thus to do; that motion, the disturber of the equilibrium of matter—of masses of unperfected matter, only disturbs it that it may perfect it—render it capable of obeying this law of its nature under all circumstances, whether at rest or in motion, volatile or solidified, appreciable or inappreciable.

Planetary perturbations, declared by the astronomers of the day to be necessarily fixed, eternal, are the aids which nature affords central force—the regular motions of planets, for perfecting planetary forms, and the forms of orbits—for establishing the true equilibrium of systems. By nature's method, disease is the remedy for its cure, so to speak; the effect of protuberant regions upon planets is the principal

remedy for the modification of these protuberances—the principal agent for perfecting the planetary form.

The forms of secondaries of systems of the size of the solar, develop much more slowly than forms of larger systems, from the nature of these bodies—the unqualified condition of the matter composing them. The low electric condition of atmosphere and internal elements of these bodies, prevents the occurrence of convulsive action to aid in perfecting their forms; this is accomplished by the slow action of disintegration of surface matter by low atmospheric influence; while it is accomplished for others—those of higher grade, by the combined action of disintegration, by high atmospheric influence, and frequent convulsive action. However, nature has provided that these bodies shall be no hindrance to the progress of the other forms of a system.

The high quality of the forces of systems of this class—the quality which causes the premature solidification of the matter of these secondaries, causes them to cool in nearly the spherical form. The slower process of perfecting the forms of these bodies accomplishes that object, they being of so nearly spherical form, in the time that the higher processes operative for perfecting forms of primaries accomplishes that object.

Great vibrations, so termed, of cometary bodies and planets, caused by the combined disturbing forces of a whole system of suns or planets upon one of their number, each one of their number, causes the obliquity of ecliptics. For example: Earth acted upon in its protuberant part, at periods, by the disturbing forces of all the bodies of the solar system combined, is swayed in its orbit from an erect position, so to speak, causing the obliquity of the ecliptic, so termed;—causing its direction of motion around Sun to be oblique to its equinoxial. These periods occur when Earth is situated, comparatively, alone upon one side of Sun; all the other bodies of the system being situated, relatively, upon the

other side; relatively only. This signifies, so situated that the disturbing forces of all other bodies of the system act from one relative direction to sway the planet's protuberant part in that direction. This position of the bodies of the solar system has never been assumed but twice since Earth existed. The first period of the assumption of this position occurred when Earth was a rare comet; its form was swayed to that degree that its tropics were above the fortieth parallel of latitude—intersected its temperate zones about equidistant from its present tropics and polar circles.

The obliquity of its ecliptic, so great at that period, gradually decreased during the immense ages while planets were assuming different positions in the system; exerting their disturbing forces separately, and in opposite directions; the planet swayed back toward its erect position—to that position. As it reached that position—maintained it for a season, the planets were again assuming position to combine forces to sway it in the opposite direction. It vibrated like a pendulum in space. This, its greatest vibration, is as one vibration in an eternity, comparatively speaking.

The second period occurred when it was a dense comet. So much had its form—the disturbing forces of the system been modified, that when it was swayed over to the extent that these forces could sway it, its tropics were far removed from their position at the former period. These forces again distributing themselves throughout the system as before, Earth is swaying back to its erect position in its orbit. Reaching this, as the ages advance, it will find no disturbing force to sway it in the opposite direction again; when that period shall have arrived, according to the laws governing the system, disturbing forces will have disappeared from the system; as calculations upon these forces—their present quantity, their gradual disappearance by exact geometric ratios, clearly prove.

The minor vibrations, so termed, causing the variation of the

obliquity of ecliptics, is caused by the unequal division of the disturbing forces of a system upon opposite sides of a body of the system; for example: The major mass of the disturbing forces of the solar system being situated upon one side of Earth, relatively, that force is exerted to sway the planet slightly in that direction with a minor vibration;—one subservient to the great vibration; bodies of the system gradually changing positions, the forces are so distributed that the planet sways back again to its former position. Attaining this position, for a season it retains it, subservient to the great vibration; while the forces are accumulating on the opposite side—until the major force is exerted from that side, when the planet is swayed in that direction.

This minor vibration is discovered and calculated by astronomers of the day; while the great vibration is not. Of these minor vibrations, there have been ten since Earth existed; like the great vibrations, they are decreasing in intensity as the disturbing forces of the system decrease in intensity—diminish in quantity.

As the bodies of a system lose their cometary form, these forces diminish in quantity. When a system contains no cometary bodies, these forces are graduated to their minimum quantity, so termed; being at their maximum when all bodies are in the cometary form, and at their medium; when part are cometary, and part planetary. These forces in the solar system are now at their minimum quantity.

The vibrations above mentioned, termed the great and minor vibrations, are the most important of the oscillatory motions of the bodies of a system, as it regards their purpose of aiding in perfecting the forms of planets. Others as important, as regards the purpose of perfecting matter of individual planets, are less important as aids in perfecting planetary form. These vibrations are directly productive of the variations of climate upon surfaces of bodies, which variations are productive of the necessary conditions for carrying on nature's

processes of condensation of cometary matter, the cooling of surfaces, the qualification of atmospheric conditions of cometary and planetary bodies. The destruction and restoration of atmospheric equilibrium, is productive of all the processes of periodic evolution of masses of gaseous atmospheric matter from the interiors of cometary bodies to mingle as a refining agent with the already existing atmospheric elements of those bodies ; of periodic disruption of solidified planetary surfaces to permit the emission from their interiors of this same refining element, imperatively demanded by their equilibrated atmospheres.

The oscillations, so termed, of bodies, of systems, are caused by the combination of the disturbing forces of the central body and neighboring planets, as primaries or satellites. Earth oscillates obedient to the combined forces of Sun, Mercury, and Venus ; Sun and Mars ; Sun and Moon. These minor oscillations are productive of a greater oscillation, discovered by astronomers, and termed the oscillation productive of precession of the equinoxes. This oscillation, ascribed more particularly to the combined disturbing forces of Sun and Moon, is directly affected by the combined action of these forces of Sun and the interior planets, and of Sun and Mars. The great oscillation is made up of minor oscillations, and could not exist, did not these minor ones exist. These minor oscillations described, would be but a repetition of a description of a vibration. The fact of the operation of so many distinct forces at the same time, major and minor, from all directions upon the body, gives the vibration the nature of a gyration — a repetition of the vibration from all directions around the body.

Moon acts alone as a major or minor force, according to the position relative to other disturbing bodies ; and acts with other bodies in making up a major or minor force, according to its position relative to other bodies, and to Earth.

Nutation, so termed — the gyration produced by the sep-

arate action of the disturbing forces of Moon, Sun, Mercury, Venus, and Mars; Moon's, and Sun's, being termed the major forces, is the oscillation to which the great oscillation, so termed, is properly subordinate;—the oscillation which makes up the great oscillation, and therefore to which it is subordinate. Nutation is the actual disturbance of Earth in its orbit by the disturbing forces above mentioned operative upon its protuberant portion; the quantity of which force is sufficient, in this case, to cause the disturbance produced upon the protuberant portion to be communicated to the whole mass of the planet; actually disturbing its orbital motion as above asserted. Its nodes recede upon the equinox in consequence of this disturbance. Moon, revolving around Earth in short periods, having its aphelion at so, comparatively, short a distance from it, is the major force in this gyration during a greater part of it.

The pole of Moon's orbit is the point around which Earth actually revolves, obedient to the great oscillation, in a period varying—increasing in length as the quantity of the disturbing forces diminish in the system. This period, computed by the present quantity of these forces in the system, is nearly twenty-six thousand years. Earth's first oscillation—revolution around this point, was completed in less than one-fifth of that time; while its last, could it be completed, would be performed in a period much longer than the present period.

Nutation—the gyrotory motion of Earth, making up, as before remarked, this great oscillation, is caused by the disturbing forces of Moon and Sun as major forces; thus: Moon—its disturbing force, operates upon Earth's protuberant portion with such power during that portion of the cycle in which this gyration is performed when Earth is in its apogee while Moon is in its perigee, that it actually retards Earth's motion on the ecliptic; causing it, by this force, to sway over—to vibrate in the direction of the force.

Gradually changing position, Earth, for the minor portion of this cycle, is in its perigee, while Moon is in its apogee; this causes the major force to be transferred to Sun, causing Earth to vibrate in the opposite direction with a minor vibration.

Were it not for side forces, properly termed, these motions would constitute vibrations; however, side forces—the disturbing forces of Sun and the above named planets, Moon and the above named planets, being minor forces continually operating upon Earth from various directions according to the circumstances of their position, change this vibration into a gyration, as before remarked.

The form of the curve described by Earth's pole by this gyration, its whole body being tilted along on the ecliptic by the force described, is that of a cycloid having the axis of motion removed to one side; the elongated section being the curve described while Moon is the major force. The effect is as though Moon, having disturbed, or retarded Earth's orbital motion, Sun, in seeking to restore the equilibrium of this disturbed motion, but partially effects the object; it fails to affect Earth's whole mass during the shorter period when its own is the major force, to the same amount that Moon had done in the longer period while its own was the major force. Earth does not assume its true place on the ecliptic in obedience to Sun's counter force. The annual displacement of Earth on the ecliptic in obedience to Moon's overbalancing force is $50.1''$. At this rate, in little less than 26,000 years, Earth retrogrades one whole circuit of the ecliptic.

This explanation of nutation will make it plain to the reader how the great oscillation is made up of the gyrations, termed nutation. The period in which one gyration is accomplished is about nineteen years, and termed a complete cycle of Moon.

These most important of the oscillatory motions of Earth,

are types of those of Sun, and all the planets of the solar system; of all planets—all suns, of all systems. Minor vibrations there are, peculiar to satellites; yet these, dependent upon the same laws with those already described, need not here be explained.

The effect of the great oscillation, more properly, nutation, is to aid in the development of surfaces after climatic influences have produced the requisite conditions for this development. Earth's surface is greatly affected by the disturbing forces of Sun, and the nearer planets; those causing nutation. These forces greatly aid the regular forces of these planets in influencing Earth's electric and atmospheric conditions, tides, &c.; thus aiding in perfecting surface matter which has been rendered susceptible of higher development by convulsive action and regeneration of the atmosphere, dependent upon climatic conditions as above described.

Cometary bodies of long periods which make their appearance, either periodically or otherwise, apparently in the solar system, never enter the system—the sphere of attractive force of the system. It is taught by the astronomers of the day, that comets of long periods enter the solar system, come in close proximity with bodies of the system; that they sometimes move, presenting their tails in the direction of motion; that they change their forms in remarkably short periods, assuming all varieties of form; being apparently anomalous, aimless, erratic bodies. From principles already enunciated in this volume, it will be readily comprehended by the reader, that these teachings are erroneous; and founded upon the ignorance of those enunciating them of the laws of systems, of suns, of all matter.

Spheres of attractive force meet, but never commingle; this proposition comprehended, is sufficient to invalidate the above mentioned teachings; to convince the mind of the thoughtful student of astronomic science, that whatever may

be the phenomena attending the appearance of comets, their apparent nearness to Sun, or other bodies of the system, they never enter the second stratum of the system; which stratum bounds the sphere of attractive force of the system; their presence within this boundary is only apparent, and a phenomenon which is explainable by law.

By the laws of optics, are explainable all the phenomena attending the appearance of comets which approach the solar system, and linger upon its confines for periods, obedient to its attractive force. Spheres of different degrees of density situated between the eye of the observer and the body observed—spheres of unevolved matter of the solar system, and of the various bodies of the system, are lenses of different quality or density, which, placed in all the various positions which these actually assume between the eye and a comet situated upon the confines of the system, present that body in all the variety of forms which bodies would assume viewed through lenses of all the different kinds.

A comet approaching the sphere of attractive force of the solar system as nearly as its own sphere of attractive force will permit, it-being attracted nearly to the verge of its own sphere by the superior attractive force of the system, will, invariably, be an elongated body; the length of its tail being according to its size, and the quality of the forces operating upon it. No comet ever comes in actual contact with the system that is not rare—unqualified to readily obey the central force of its own system; consequently, all comets coming in actual contact with the system, have tails. No comet ever approaches the system being of less size than the primaries of the system, or of shorter period than the outer primaries of the system; while many approaching it are, in size, equal and superior to Sun.

The verge of the sphere of attractive force of the system, is convex; the comet's light projected upon this convex surface, is dissipated—expanded. Viewed by an observer from

Earth with no intervening sphere between, save that of Earth, it is seen through a plano-concave lens, of the size to which its image is expanded, being projected upon the outer surface of the sphere, subject to the law of convergence of rays passing to the eye through the medium of both these spheres. The distance being immense to the verge of the sphere of attractive force of the system from any point in it where Earth can be situated, a comet thus seen will appear of small dimensions, and exhibit a more natural appearance than one seen under any other circumstances. Do dense strata, or a planetary sphere intervene, the comet is seen under such different circumstances that its appearance greatly differs from one seen under the circumstances just delineated. The comet projecting itself, as in the other case, upon the convex surface of the sphere, as in that case, is expanded; its light passing through a section of that sphere, slightly converging, is projected upon the intervening stratum or sphere, where, as before, the object is expanded. An intervening sphere being of smaller extent than the parent sphere, is more convex on any part of its surface than is that; the object projected upon that surface will be more distorted than was the object projected upon the former surface. The sphere intervening between the eye and the comet is a concavo-convex lens to the eye of the observer; the light of the comet passing through this lens will present the object as greatly distorted. However, it will not generally be presented to the eye direct through this sphere. Light from the comet projected upon this sphere is projected upon a more condensed sphere than the former; one which does not so readily transmit the light of the comet, as the former, its electric fluid being more diverse from the electric fluid of the comet than the former. Instead of transmitting this light, it reflects it; reflects it back upon the concave surface of a stratum of the parent sphere, forming a distorted image of the comet, which is presented to the eye of the observer.

Circumstances may occur where this image may be reflected, and the reflection presented to the eye, thus presenting the comet distorted beyond comprehension.

Again :—A comet projecting its light upon one of the three interior—denser strata of the system, this light will generally be reflected before it is transmitted. Being projected upon the interior surface of the contiguous outer stratum, the image thus pictured—presented to the eye, is the image of a vast comet in near proximity to Sun, whose tail may be presented in the direction of motion, or otherwise, according to the circumstances of the position of the comet relative to the observer, or relative to Sun.

Circumstances may occur, where, in the short space of a few days, the comet will apparently change its direction of motion, presenting its nucleus and tail, alternately, in the direction of its motion; lengthen its tail enormously, or lose it entirely. These circumstances are the position of the comet and the observer—the angles under which the light is projected upon a stratum, and is reflected from it to the eye.

The enormous comet visible in 1843, presenting such remarkable phenomena, projected its light upon the interior stratum of the system, and reflected it back upon the interior surface of the contiguous stratum at such an angle, that it presented the phenomena observed. Many other instances have occurred where comets have thus projected their light upon this interior stratum, and the two contiguous ones, reflecting it upon contiguous concave surfaces, presenting the image to the eye thus reflected, causing the impression that the comet was actually in the immediate vicinity of Sun; being almost lost in its rays. With such distinctness is an image thus projected upon adjoining surfaces, that it is difficult to convince the mind when it is viewed, that it is not the real object, though distorted to such a degree that law can not account for its form or proportions.

The re-appearance of comets of ascertained periods under

different circumstances at each successive re-appearance, is proof that the orbits of these are not within the solar system, either wholly, or in part; is proof that it is position of the bodies of the system—their individual spheres, and that of the observer relative to the comet, which is productive of the phenomena attending the appearance of a comet. There are fewer comets of ascertained periods than astronomers calculate; however, they have justly calculated the periods of many of “long periods.” They mistake neighboring comets—denizens of the same system, which periodically approach the solar system, and come within the influences of its forces, for the same comet. Circumstances of orbital revolution of the solar system, and the neighboring systems to which the comets belong, determining that the periods of these alternate approaches to the system shall so nearly coincide, that they are readily mistaken for the same comet.

The remarkable comet of 1843, whose period is actually 175 years, or nearly that, has been calculated by some to be a comet of “short period;” its period has been calculated by some, to be twenty-one years, by others, to be seven years, and by others, six years. These miscalculations are suggestive of the mistaken calculations of astronomers as to the actual number of comets which come within the sphere of attractive influence of the solar system; suggestive of the mistaken calculations as to the length of the periods of most of those whose periods have been calculated.

Halley's comet is an example of correct calculation of a comet's period. It is also an example of the different circumstances under which a comet may be observed in the system. Its “perihelion passage,” so termed, has never been observed to occur successively upon the same day or month of the year, and its successive re-appearances have always been deferred for intervals of months. It has always, when observed at its “perihelion,” presented different phenomena from that ever before presented at this period. At one time it appears

with a tail 30° in length ; at another with one 20° ; at another with no tail during the greater period of its nearest apparent proximity to Sun ; while at each of these distinct periods, it has presented new and varying phenomena.

This comet may be taken as an example to illustrate the action of the law productive of the phenomena attending the appearance of comets. Its "perihelion passage" has been accurately calculated, so to speak, three times, to the day. This signifies that the day of its appearance in nearest proximity to Sun, has been calculated ; that appearance being the projected image of the comet on the interior surface of the outer of the three interior—denser strata of the system ; the actual body presented through the second of these strata being lost in the light intervening between it and the observer.

Sun under certain circumstances may be nearer the verge of its sphere than under others.

The sphere being cometary, obeys the laws governing cometary matter ; its matter falls behind the center of motion of the condensed body of the sphere, subject to the position of the planets. These planets being situated, relatively, behind that center of motion, Sun will occupy a position in its sphere similar to that occupied by the nucleus of a comet ; are they situated forward of the center of motion, or on either side, Sun will occupy a central position within its sphere ; planets being retaining forces to the matter of this sphere in nearly an equal degree to Sun. The coincidences are rare when Sun is approachable by a comet to within less than the actual semi-diameter of the sphere, were that body spherical ; therefore, the "perihelion passages" of comets, are only their nearest appearance to Sun, as above stated ; and the phenomena exhibited at such periods, depend upon the position of Earth and other bodies in the system.

The "perihelion passage" of some of the observed comets, is their position behind Sun relative to Earth, or so nearly so, that their light, to reach Earth, must pass

through one or all of the three interior strata of the system. This, generally, as before remarked, determines the production of extraordinary phenomena. Of the comets which have been observed, comparatively few have presented the remarkable phenomena attendant upon the contact of a comet with the system in the position above named. Coincidences are rare when the same comet comes successively in contact with the system behind Sun, relative to Earth, producing the phenomena in question.

The last appearance of Halley's comet previous to its appearance in 1835, was predicted under extraordinary circumstances—circumstances showing that coincidences may happen, so that the periodic return of comets, to their “perihelion” may be calculated, subject to the forces of the system; as in the case cited; also showing that, under certain circumstances, planetary spheres—those of the balancing and contiguous outer planets, may reach the verge of the system, and retard the motion of comets which may be in their vicinity. The spheres of Jupiter and Saturn, actually retarded the motion of the comet along the verge of the system. All the observed “perihelion passages” of this comet, have occurred when Sun was in the center of its sphere; or comparatively so. The retardation of this comet referred to, was only its retardation upon the verge of the system as it sought to pursue its path near that verge, obedient to the powerful attractive force of the system; which, for the time, diverted it from its true path. Being then in its aphelion, the period when it was least subject to its own parental central force, it was subject to any influence with which it might come in contact. Jupiter and Saturn being then so situated upon the same side of the system that their spheres of attractive force came, successively, in contact with that of the comet, and their spheres being of higher grade than the parental sphere, detained it in that locality, contiguous to the system, until the orbital motions of these planets had carried

their spheres beyond the reach of the cometary sphere ; when it was free to obey the weaker force of the parent sphere.

The last appearance of this comet—that of 1835, was unattended by this phenomena ; its “perihelion passage” was correctly calculated. It was visible from Earth nine months ; though at no one place for that period. The phenomena attending its approach to its “perihelion passage” during the whole time of its visibility was peculiar. Its first appearance was that of an oval nebula with a point of concentrated light within it. It retained this appearance for two months, nearly, when a tail began to appear ; which, from this time rapidly developed until it reached its greatest length, which was 20° . After reaching its greatest length, it again so rapidly diminished that in twenty days it had disappeared. Attending the development of the tail was an unusual phenomenon. The nucleus, suddenly, on the day of the observed commencement of the tail, brightened, and was observed to throw out jets of light from that part turned toward Sun—in its direction of motion. With occasional intermissions, this phenomenon continued until the tail had disappeared. These jets were ejected from the nucleus in all possible directions, subject, however, to the general direction of motion of the comet. Being ejected in directions approximating to the direction of motion, they curved backward, their matter apparently commingling with that of the tail, and helping to form it. A single jet was at one time observed, barely visible, so narrow were its limits of divergence from the nucleus ; also fan-shaped jets at other times ; at others many single jets darting forth in different directions. All these jets curving backward and mingling their vapory matter with the tail, conveyed to the mind the idea of a body moving against a wind ; which body was constantly emitting jets of vapory matter which was carried back by the wind, and re-absorbed into the body, or dissipated in space behind it. After the “perihelion passage,” the comet

was lost sight of for two months. At its re-appearance, it presented an entirely different aspect, having, apparently, undergone an entire transformation during that period. It presented no vestige of a tail; the nucleus appeared surrounded by a coma, which seemed to be gradually absorbed into the nucleus itself, as the comet continued to recede from Sun; meantime the comet was observed to be rapidly increasing in dimensions; in the space of one week it dilated to forty times its dimensions on the previous week. Continuing to dilate, it gradually assumed a cometary form; its posterior portion, however, being too broad to be denominated a tail. It actually became invisible from expansion, all except the nucleus, which continued to brighten while the envelop continued to dilate and disappear. At its last appearance, it presented the same aspect presented at its first appearance—that of a small round nebula with a bright point in the center.

The above described phenomena attending the last appearance of Halley's comet, is the same as that attending the appearance of any comet of its proportions which assumes the same position relative to Earth that this comet did; and coming in contact with the system as it did. The comet was first seen as a small, round, nebulous body; not until two months after its first appearance did a tail begin to appear; which having begun to develop, grew so rapidly, that in fifteen days it had reached its greatest length, 20°. The light of the comet was reflected from the convex surface of the second of the three interior strata of the system, on to the interior, concave surface of the outer of these three interior strata; which reflected image transmitted its light to observers upon Earth through the medium of this stratum. The most developed light—that of the nucleus and adjacent portions, was first reflected, first transmitted to the eye from the image; thus its first appearance was that of a nucleus surrounded by a coma, which coma brightened—seemed to be

absorbed into the nucleus, while a nebulous envelop of greater proportions was developed around the nucleus, preceding, and simultaneously with, the development of the tail. Light from the rarer matter of the comet projected upon this convex surface, could not as soon reach that surface as the higher quality of light; could not as soon obey the law of reflection; or when reflected, as soon reach the surface of the adjoining stratum; consequently, light from the nucleus, which was first reflected upon that surface, began to be transmitted to the eye before the whole image had been projected upon the surface. The nucleus would thus, necessarily, be alone visible for a period, while the lower quality of matter of the body was reflecting its light, and transmitting it from the projected image.

The nucleus of a comet transmits its light through strata of the system, and through planetary spheres, readily, in comparison with that of the rare portions; it as readily reflects it, and as readily transmits this reflected light to the eye; therefore, a comet assuming position favorable to its visibility, its nucleus and adjacent portions become visible previous to the more rare portions. So low is the quality of the light of the rare portions of a comet, that when it must reach the eye by reflection, as in the case of the comet under consideration, it is long in reaching it; long in comparison to the time occupied by the higher quality of light.

Rare cometary matter is of such a nature; the electric fluid operative upon, and generated by it of so low a quality, that light of low quality is elicited from this matter, and this light transmitted at a comparatively low rate of electric speed.

Two months elapsed after the nucleus of this comet had transmitted its light to the eye before the matter of the tail began to be visible; before its light began to reach Earth, transmitted from its reflected image. This light, like that of other portions of the comet, was transmitted according to

its quality; the denser portion of the tail first becoming visible, the extremity, or rarest matter, last. Changing position, gradually the matter of the tail disappeared, while the nucleus and coma remained visible. This appearance arose from the position which the reflected image assumed relative to the observer—the form of the image reflected upon this concave surface. It remained visible only while in such a position as to reflect this image upon the interior surface of the third stratum. Its dimensions were such, that reflecting its image upon an interior surface to this, it became invisible from Earth—lost in the intervening light.

The rare phenomenon presented by this comet, of the jets of matter emitted from its nucleus, is one which illustrates, perfectly, the phenomena attending the rotary motion of cometary bodies. Matter of these bodies, it has been remarked, revolves around centers in currents. These currents actually became visible through the telescope, in the case of this comet. Carried around the center by its resistless force, these currents of matter fell behind the center of motion, speedily, as they rounded the extremity of the nucleus, presenting the appearance of jets of vapory matter left behind by the superiority of motion of the nucleus; which vapory matter intermingled with, and formed the matter of the tail. Nature has given philosophers, at least one illustration of the action of the law of revolution of cometary matter; one land-mark, so to speak, by which they may understand the method of the revolution of this matter, and measure the effects of solidification, and thus infer the just law of rotary motion of all suns.

Emerging from the absorbing light intervening between it and the observer, this comet became again visible by its image, projected, as before, upon the interior surface of the outer of the three strata. Its aspect, upon its re-appearance, was nearly identical with that at its first

appearance; however, being reflected under different circumstances, it presented different phenomena. It presented such enormous dimensions—dilated its form to such a remarkable degree, that it became invisible, except the nucleus. It presented, after a time, its whole form to the view, as before its disappearance; but so exaggerated was that form, that it was said not to have developed a tail; but to have qualified its form into that of a paraboloid, the extremity of which was dissipated—lost to the view. Its remarkably exaggerated size, upon its re-appearance, was simply owing to the position of its projected form. This form was projected upon the sharply rounded extremity of the outer surface of this second interior stratum; sharply rounded in this instance by the position of Venus, the planet revolving in that stratum.

An expanded body like a comet, transmitting its light to a distant surface, projects that light upon an immense area of surface. Sun is visible from every point within the system; the eye of an observer takes in rays from all points upon that surface presented toward it; yet it takes not in all the light from that surface; each observer takes in only that which is suited to his eye. Thus Sun is visible in space to that point where beams of electric fluid from it become dissipated—lost in space by being absorbed by intervening objects.

A comet is visible in space to a point where beams of electric fluid from it are lost, having been thus absorbed. A surface, like the eye, attracts those beams which are affinized to it; and surfaces most favorably situated being those which attract the most light, present the most vivid picture of the real body of a comet. It is such a surface which always transmits the light of the comet to the eye by reflection; surfaces unfavorably situated rarely transmitting any image of the reflected body. When not reflected, a comet is seen as any other object is seen, by means of atoms

of its light transmitted in beams of electric fluid from its body.

Thus, when a surface reflects an image, it always reflects it exaggerated, unless reflected from a concave surface. The surface receives beams of electric fluid—beams of light, just in proportion to its situation relative to the body. Is it a plain surface, with the body situated perpendicular to it, it will receive an exaggerated projection of the body upon it; that projection being in size according to distance; is it situated diagonally relative to the surface, the projection may be exaggerated, or otherwise, according to the obliquity of the beams emanating from the body and striking the surface. Is the surface a concave, the projection of a body situated perpendicular to it will be of the natural proportions, or exaggerated, according to the concavity of the surface. Is it a convex surface, the image will be exaggerated to a degree beyond that to which it is possible for a plain or concave surface to exaggerate it.

The convexity of that section of the stratum upon which the light of the comet in question was projected at its re-appearance, was sufficient to exaggerate its proportions greatly beyond what they were exaggerated upon its first appearance; as much more exaggerated as the transmitted image of the comet seen after its re-appearance was greater than that of the transmitted image seen after its first appearance. To such a degree was the projected light dissipated upon this convex surface, that the reflected image was of such rarity that it could not be perfectly transmitted to the observer upon Earth; only the denser portions of the envelop perfectly transmitted their light; and this was of so rare a consistence as to be barely visible.

Changing its position as it receded along the verge of the system from the relative position of Sun, it again presented the aspect presented at its first appearance; the projected image having moved to a point upon the sphere less convex.

The comet disappeared when its image was withdrawn from the surface transmitting it.

This comet is of comparatively small proportions; approximating to the size of the planet Uranus. The comet of 1843 was of much greater proportions; of such proportions as to become visible, as before stated, by its image, projected upon the interior surface of the second of the three strata. The size of this comet corresponds nearly to that of Neptune.

All comets visible within the solar system come in actual contact with the system, by the medium of their spheres of attractive force.

Occasional visitants to the solar system, are comets of more vast size; of a size corresponding to that of Sun. These visitations are extremely rare, but three having occurred since the first observations in astronomic science upon Earth. The first of these occurred in the year 575. The comet was seen at noon day "close to the sun," as is recorded. The second, in the year 1105; the third, in 1402. These have all been confounded with those of less size, and of shorter period; however, they make their periodical returns to the vicinity of the solar system but once in thousands of years, each of them. They are sister suns to Sun; but not of the same formation; they belong to the next interior formation which is now being evolved by the parent sun.

The other comets which visit the vicinity of the system are members of contiguous sister systems. The suns of the formation of which Sun is a member, number thousands; the spheres of these suns must, from necessity, collide frequently; as they revolve in the same plane around their central body.

The solar system, in the course of its orbital revolution, thus comes in contact with many sister systems—many which are evolving their forms; consequently, the number of comets which become visible in this system is great; they number by thousands; yet thousands of years elapse while

all these are becoming visible in the system — while the system is performing its complete revolution.

Cometic astronomy can hardly be said to be in its infancy among men; it is yet unborn; the true theory of cometary phenomena—the nature of comets, and their uses in the universe, having never been discovered. Of all the errors taught by philosophers concerning astronomic phenomena; those taught relative to comets are most glaring. The failure to discover the use of these bodies in a system, in the universe, their perpetuity as bodies, the fact that no comets of “long periods” are denizens of the solar system, or can possibly be such, discovers a degree of ignorance of nature’s methods, of the laws of the system, that is truly remarkable in this age of comparative light. It is taught by some of the most eminent astronomers of Earth, that comets, undoubtedly, at each revolution—at each “perihelion passage,” lose a portion of the matter of their tails; which matter is now, probably, intermingled with the luminous matter surrounding the sun, and visible from Earth. They have never paused to consider the consequences of such catastrophes in a system, else they could never have promulgated such a theory. With such catastrophes imminent at all times, how is the balance of the system to be maintained? Such matter as can make itself visible upon Earth from the reputed distances of these comets at their “perihelion passages,” however vapory it may appear, must possess ponderability; and possessing this, cast at random in any part of the system must produce disorder—destroy the balance of the system. Who has ever discovered that God ever instituted a form as useless, as purposeless, as comets are, according to the received theory of the nature of these bodies? From the atom that floats in the sun-beam, the mighty sun that revolves in space, to the spirit of man, there is no form purposeless; none that does not fill a place in the universe, in a system, in a world, which none but that form can fill; and which, without that form,

would be a void ; creating disorder, disaster, in the universe. As progress is the law—as form progressively develops, it can readily be accepted, that comets are infant suns—embryonic planets, whose ultimate purpose in the universe is to produce man ; and thus to glorify the God of nature.

Comets of “short periods” discovered within the system, are fragments of the disrupted formation—asteroids, which have retained the cometary condition since the disruption of the seventh formation. Of these it is not necessary here further to speak.

Not more inconsistent with law is the theory of astronomers above mentioned concerning the rare matter of comets, than is that which teaches that there is actually meteoric matter in revolution in the system, outside of Earth’s atmosphere. The periodic occurrence of meteoric showers, the occasional fall of masses of mineral substance to the surface from high regions in the atmosphere, these showers emanating, apparently, from one region of the heavens, and these mineral masses falling in localities far removed from active volcanoes, it has been conjectured—without a shadow of reason, or philosophical proof, that these emanate from regions beyond the atmosphere ; that, possibly, they are remnants of disrupted bodies, or comets’ tails, which are in revolution in the system in the vicinity of Earth. Without entering into the discussion of the principles by which the phenomena of meteoric showers occur, it is appropriate, in this connection, to state ; that these showers—all meteors of every description seen in Earth’s atmosphere, originate in that atmosphere by virtue of chemical action instituted between the currents of the electric fluid passing into it from distant planets and that originated in it, and currents of grosser atmospheric matter. Currents of gross atmospheric matter of certain qualities coming in contact with similar currents of the electric fluid of certain qualities, instantane-

ous combustion ensues ; meteoric masses are formed, or the substance formed by the chemical union of affinitized matter is dissipated in star like corruscations of gaseous matter. The periodic occurrence of meteoric showers, is owing to the periodic return of the conditions producing them ; which conditions are the atmospheric conditions attending peculiarity of position of Moon with regard to Earth ; which peculiarity of position is inducive of peculiar electric conditions of Earth's atmosphere.

No sphere of meteoric matter is in revolution in any part of the solar system ; neither is it possible, that were there, any portion of it could leave its plane of revolution and determine to any planet of the system, without producing disorder of the system—destroying its balance ; as will be readily comprehended by the reader, from what has been said upon the laws governing systems.

CHAPTER IV.

EARTH.

AS the solar system has been selected as a perfect example of the method of the evolution and progressive development of all systems, Earth is selected as a perfect example of the method of the evolution and progressive development of all suns. As what has been said illustrative of the laws developing, regulating, and governing, the solar system, equally applies to all systems, so what will be said illustrative of the laws developing, regulating, and governing Earth, equally applies to all suns of all systems. The solar system having been discussed as to its evolution, the evolution of its several forms, their distribution, &c. it now remains to discuss, as minutely, the method of formation of a sun—a solidified body, and the method of perfecting the form and matter of that sun.

It is the purpose in this chapter to discuss the development of Earth to the planetary condition.

Earth, the ninth formation of the solar system, was evolved by the parent sun according to the law of evolution of suns already stated. By this law, when first evolved, it was a rare comet. Its first revolution was that of a comet rarer than Halley's comet at the period of the first observations upon that comet; rarer than the comet of 1843 at the period of the first observations upon it, which was many centuries ago;—a comet whose train, viewed from the distance of Earth and Sun, would have measured 30° , and more. At its first revolution, the aphelion of its orbit was beyond the orbits of the nearest asteroids;—near the locality where the orbit of the disrupted planet would have been when regulated;

its perihelion inside the regulated orbit of Mercury. Many revolutions of this rare comet were performed before there was any sensible variation of the location of the aphelion and perihelion; many revolutions before there was any sensible diminution of the length of the tail.

Mars, itself a rare comet at this period, was its only near disturbing, developing agent; the disruption of the seventh formation having deprived it of a powerful agent for the regulation of its form and motions. Jupiter exerted its influence upon the infant sun, as did the more distant Saturn; which influences were powerful to aid that of Sun and Mars, in regulating its orbital motion. Its first cometary era was longer than it would have been had the system been regularly developed—had no catastrophe occurred within it. This era closed when the cometary matter forming the body had so far condensed that chemical action of it could elicit heat. During this first era, the matter of the comet was gross light; so gross that it was visible as vapory substance.

Cold, was the first condition of matter of Earth, as of all suns. The duration of this era was longer than that of any other; it measured by myriads of ages. At the close of this era, little appreciable change had occurred in the situation of its orbit, little in its proportions. The institution of the second era was the institution of more rapid progress in the development of the body. Heat could now be elicited as an attendant agent upon light; one which could aid in the elicitation of a higher form of the electric fluid than had heretofore been eliminated by the matter of the body; which fluid should operate with the other existing elements for the institution of higher conditions of matter.

Heat was rare during the second cometary era; yet, it acted to appreciably condense the matter of the comet, and thus appreciably aid central and other forces of the system in the regulation of its orbital motion. During this and the

first era, the atmosphere of the body was of nearly equal density with the condensed body, so termed. Its substance was the higher quality of atoms of light repelled by the more gross atoms; which atoms escaped from contact with these grosser atoms in emanations, and which retained places around the condensed body according to their degree of density, or quality; the grosser ones taking position nearest the surface of the body, those of higher quality at greater distances. This atmosphere, during these two eras, was dimly discernable from the condensed body of the comet.

At the close of the second era, the aphelion of Earth's orbit was still outside the regulated orbit of Mars; its perihelion inside that of Mercury. The tail of the comet would have measured, at the distance of Earth from Sun, nearly 30° ; so slightly had condensing forces, during this long period, operated upon its rare matter. The introduction of the third era was but the stimulation of action of this cometary matter.

As noticed in the preceding chapter, cometary and planetary eras, like eternities and cycles of eternities, are separated by intervals, which intervals are periods of more utter inaction, closing the night of the era, as the last portion of an era is termed, and preceding the day, as the former portion of an era is termed. These periods of inaction are not distinctly distinguishable from the preceding portion of the night of an era; they are only dimly so; being periods of deeper repose—more utter stagnation of forces than in the former part of the night of an era. This period of deep repose, of utter stagnation, corresponds with that which precedes the ushering in of day; succeeds the midnight hour,—a period of quietude in all nature, such as was not during the evening. It also corresponds to the intervening periods between eras, cycles of eras, eternities, and cycles of eternities. It is reckoned as a separate period in all eras, from the fact of its being a marked period; in some, it is more marked than in others.

This period intervening between compound cycles of eternities, is the period succeeding the perfect decomposition of matter—the re-absorption of the primal elements; and is a marked period; the same period between cycles, and days of a cycle, are nearly equally marked periods. Though termed intervening periods, they are reckoned as portions of the compound cycle, cycle, or day; being, properly, part of it, as will appear.

Morning, proper, signifies a period of action, as evening or night, proper, signifies a period of rest; therefore, the intervening period here spoken of is properly of the night of the era.

Eras, like days, are subdivided into the morning, the day, the evening, and the night; each subdivision being distinguishable from the preceding, or the succeeding, by the existing conditions of nature during that subdivision of the era. As in the morning of a day, nature awakes from sleep, arouses herself preparatory to the labors of the day, and ushers in the sunrise, the busy period; so, in the morning of an era, nature awakes from sleep; her forces, which, just previous, were stagnant, arouse themselves to renewed action. As it were, the crowing of the cock is heard, and the looing of the herd; the chirping of the early morning bird, the sound of the anvil, and the whistle of the laborer as he hastens to begin his day's labor. Motion is stimulated in all matter; convulsive action succeeds; element seeks its kindred element; atmospheric elements begin to combine with earthy elements in planetary bodies, and cometary matter begins to send forth higher elements to meet the wants of a stagnated cometary atmosphere;—in a word, labor begins. As the day proper is the period during which active labor is performed—the energetic period; so is the day of an era the period when active labor is performed by nature—the energetic period. Action commenced during the morning, is energized as the day is ushered in and advances. The most of labor that is

accomplished during an era is accomplished during the day of the era. Elemental action is intense during the day, which, during other periods, is either dilatory or inert. As in the evening proper activity subsides, all nature naturally seeks exemption from labor—seeks repose, so in the evening of an era, elemental action gradually subsides; nature gradually seeks her needed rest—sinks to repose. As in a night proper, all nature sleeps, so in a night of an era, all nature sleeps. Elemental action is stagnation, so to speak; life is death; action is rest.

Eternal periods—days and nights, correspond to the day and night of an era; the day or period of action corresponding to the day of an era, (which day comprises the so called morning and day of an era,) the night, or period of rest, to the so called night of an era, (which night comprises the evening and night of an era.) As these periods—the day and night of an era are of equal length, so the eternal periods are of equal length; being properly subdivided, as are the day and night of an era. The nature of the subsidence of action at the ushering in an era of rest, corresponds to the nature of that which ushers in an eternal period of rest; as also the nature of the renewal of action at the dawn of an era of action corresponds to the nature of that which ushers in an eternal period of action; however, in case of an era, the opening and closing processes are less marked than in case of the longer periods, as matter has so far progressed that action can not cease to the extent that it does at the close of an eternal day; and, therefore, decomposition of forms can not ensue.

The cometary period, divided into twelve eras, is composed of two cycles, properly termed, of six eras each. In like manner, the twelve planetary eras compose two cycles.

Earth's third cometary era, ushered in after a night of repose of all elements of the body, was an era of greater action than the preceding; each new stimulation of motion

instituting a higher, quality of motion—a higher condition of matter. During this era condensation ensued more rapidly than during the former one, from the fact of the evolution of greater quantities of heat by the stimulated action. At the close of this era Earth was still a rare, vapory comet; its aphelion was situated just outside the regulated orbit of Mars; its perihelion, just outside that of Mercury. Its tail would have measured 28° . Atmospheric conditions had not appreciably changed during this era.

The ushering in of the fourth era was the institution of still higher conditions of that cometary matter. A still higher degree of action induced the elicitation of still greater quantities of heat from that matter during the era; condensation more rapidly ensued than during the preceding era. During this era, orbital motion was regulated more than during the two preceding ones; still, however, at its close, the orbit was exceedingly eccentric; its aphelion and perihelion being, comparatively, little removed from their positions at the close of the last era; its tail measured, comparatively, little less than then. During this era the procreative force of the body was qualified to that degree that formations could be instituted within it, and might have been perfected to evolution had the sphere of the body been of greater proportions and of less density; however, no formation was instituted during this era, within the body, which was completed to evolution. Centers were established, around which affinized atoms accumulated, answering to the centers of formations for the three strata contiguous to the outer stratum of the system. So rapid was the evolution of matter of this system, so rapidly did strata successively begin to evolve their matter, that these embryonic suns were disorganized, and their matter attracted to other centers as the evolution of more dense matter progressed. Not until after the commencement of the fifth era was there a permanent center instituted; one which could be permanent from its nature. The central

atom, in this case, was from that portion of the second interior stratum of the system which could evolve atoms in season for them to assume the office of central atoms. One being evolved fitted for this purpose, instantaneously the evolved matter of the system began to accumulate around it; immediately its force became so strengthened that no atom of the system could disorganize the germ of a formation thus instituted. It was completed and evolved before the institution of the sixth era. All the evolvable matter of the system determined to that center—is comprised in Moon's diminutive system.

During the fifth era, heat was the condition of matter of the body. Condensation rapidly ensued from the nature of the action induced by the quantity of heat and higher electric fluid developed at this stage.

Previous to the institution of the third era, Venus was evolved; which body acted as a developing agent to Earth from the period of its first evolution. It rapidly progressed under the powerful influences operative upon it; and was an effective qualifying agent to Earth during the fifth and subsequent eras. Mercury, evolved prior to the institution of the fifth era, acted also the part of a qualifying agent to Earth's form and motions during these eras.

At the close of the fifth era the aphelion was located nearly in coincidence with the regulated orbit of Mars: the perihelion, nearly midway between that of Mercury and Venus. The size of the comet had sensibly diminished; the tail would have measured 25° .

Atmospheric conditions during the fifth, as during the preceding eras, were nearly those of the condensed body. But slightly rarer than the matter of the body, atmospheric elements wrought for their own progress, as did the elements of the body. Rare volatility being the condition, during this period, of the matter of the condensed body, there was continued reciprocity of action between atmospheric elements

and those of the body. Perpetually emanating from the body were streams of gaseous fluid affinitized to the atmosphere; while surface elements of the body were perpetually attracting the grosser atmospheric elements to themselves; thus developing themselves—producing higher surface conditions than those prevailing in the depths of the body.

The institution of the sixth era, was the institution of the rare, or boiling mercurial stage. The dense vapory, had preceded this—was the condition during the fifth and the latter portion of the fourth era.

While in the dense vapory stage, the volatility of matter is as that of condensed vapor. The semi-dense vapory stage occupied the third and former portion of the fourth eras; being the stage immediately succeeding the rare vapory, which occupied the first and second eras.

During the continuance of the rare mercurial stage, intensity of heat was the condition of matter of the body. Not, however, until the seventh era—the latter portion of that era, was the greatest intensity of heat developed. The volatility of matter was decreasing, while intensity of heat was increasing. At this period, matter was of the volatility of boiling mercury; its constituents were the lowest forms of gaseous substance. Sulphur was the preponderating element; and this, in combination with the basic elements, was matter—all matter at that period. A close examination of this matter would have conveyed to the mind the idea that it was sulphur, simply; though much more volatile than sulphur in its boiling condition; not the pure golden brimstone of to-day; but gross metallic sulphur of great impurity; but resembling nothing so much, either in taste or smell, as sulphur.

Condensation progressed during this era as much as in the three last. At its close, the aphelion was inside the regulated orbit of Mars; the perihelion, approximating to that of Venus. Its tail would have measured over 20° .

disturbing forces of the system operating gradually to bend the body from its upright position, the greatest obliquity of the ecliptic was attained about the middle of the third era. At the close of the seventh, it had swayed back to its upright position, when its equinoxial was parallel with the plane of the ecliptic. During this immense period, three of the smaller vibrations had as many times brought the ecliptic and equinoxial into near coincidence, while the smaller oscillations had been periodically inducing their designed effect upon the matter of the body. The periodic occurrence of near coincidence of the ecliptic and equinoxial, was productive of the effect to equalize the temperature of the volatile matter of the body, or of the atmosphere of the body—of all sections of it. This resulted in the production of greater degrees of heat in the matter of the whole body, or whole atmosphere, than when the body was more inclined; thus inducing intensity of atomic action of all matter of the body, or of atmospheric elements of the whole enveloping atmosphere. Again; the three epochs, when these lesser vibrations caused greater obliquity of the ecliptic, were epochs when climatic conditions of various sections of the body or atmosphere were most diverse. Torrid heat, and intense polar cold, was the contemporaneous condition of different sections at these epochs. This condition was also productive of intensity of action. Cold operative with heat, is productive of greater intensity of elemental action, so termed, than results from the action of heat alone. Element acts upon element in this case, as atom acts upon atom in the other; thus inducing intensity of elemental action, as intensity of atomic action is induced in the other case. The effects, in each case, are the most beneficent upon the cometary matter of a condensed body and its atmosphere at the early periods when it is yet so undeveloped as to but slightly appreciate the influences of position, when it has scarcely begun to eliminate heat as an agent for its own elevation, or to operate with cold upon elements for the

evolution of new elements; and are equally beneficent upon matter of a condensed body through the agency of its atmosphere, and upon the atmosphere itself.

Condensation of cometary matter productive of heat of matter of the condensed body, is productive of a higher condition of atmosphere. The evolution of heat—the intensity of chemical action of elements productive of the condition, heat, induces the elimination of atmospheric elements. Atmospheric elements, signify elements of the same nature as earthy elements; they being a higher grade of the same elements; the absence of earthy matter in atmosphere being the absence of the grosser forms of the electric substance constituting all matter. These higher elements, eliminated by intensity of chemical action, gravitate toward the spiritual plane as far as their nature will allow; however, their ponderability, or affinity with physical substance, does not permit their escape from the immediate sphere of influence of surface matter of the condensed body.

A body is never destitute of an atmosphere, from the period of its first institution, from the fact that matter is of two natures, atmospheric and earthy, so termed. Atmospheric matter assimilating to the spiritual plane is ever outer matter; while in its nature it is of rarer consistence than earthy. Thus a body, even in its embryonic state, possesses an atmosphere; even the single central atom, prior to the accumulation of atoms around it, eliminates its atmosphere, as do all single atoms, and all accumulations of atoms.

Intensity of heat, as intensity of cold, is a low condition of matter; the intensity of heat developed by matter of the condensed body of a sun in the sixth and seventh eras, is not developed by atmospheric matter; it being of a nature during those eras to appreciate the cold of space; which, during former eras, it was little better qualified to appreciate than the matter of the condensed body. The rare mercurial stage being reached, as before stated, elimination of

higher atmospheric elements commences; the atmosphere commences to rarify, while the condensed body condenses. With the inauguration of this stage, commences a new era of atmospheric development; henceforth, the cold of space can operate to qualify its temperature—to condense its grosser elements, that they may tend to the surface; and thus the atmosphere becomes continually rarer. All space is cold—must be from the nature of the matter of space; therefore this is a perpetually operative agent for the qualification of atmospheric matter.

The ages of the sixth and seventh cometary eras of a sun only suffice to qualify atmosphere to the degree that it can act as the agent for transmitting the cold of space to surface matter. This immense period suffices to cool and rarify atmosphere to that degree that the cold of space may be transmitted through it to the surface of the condensed body, by the medium of its several strata. Thus, the institution of the eighth era and mercurial stage, is the institution of a new era in the progress of the condensed body—an era of more rapid progress; from the fact that atmospheric cold can now aid in its condensation; which condensation could not possibly progress from this period, without the aid of this new agent. The parental electric currents operative upon the atmosphere and condensed body, which are only indirectly productive of the varieties of atmospheric and surface temperature of bodies in higher stages of development, it may be said, directly affect atmospheric and surface temperature of bodies in the early cometary stages. Their effect is to produce a degree of action of all matter of the body, dependent upon the susceptibility of that matter to their action and the direction of the beams of this fluid coming in contact with the various sections of the body; which direction is dependent upon the position of the body on the ecliptic. The electric fluid, which, indirectly, through the agency of light which is first eliminated, operates to produce heat in a

qualified atmosphere, upon a qualified surface, directly operates to produce heat in low cometary matter ; thus, as substance, it acts directly with this substance, at the same time causing more intense action of atoms of it among themselves ; which action is productive of heat in cometary matter.

The diversity of condition of cometary and planetary matter, necessitates a diversity of method whereby to eliminate the necessary quantities of heat for the uses of the bodies in these two conditions. Heat, developed by a cometary body by intensity of action of its volatile matter, and by planetary bodies by atmospheric agency,—volatility of matter being a necessity in the elimination of heat—is the effect of the same quality of action ; viz : chemical action of atoms of light. However, the method of this action is diverse, in that atmospheric heat is eliminated by the agency of atoms of light elicited from lower atmospheric matter by the agency of the electric fluid ; while heat of cometary matter is eliminated by the action of the electric fluid with already existing atoms of light, or low matter, and action of atoms of this light, or low matter, among themselves, as above described. In other words : It is by direct chemical action of atoms of the electric fluid with existing matter that heat is elicited from this matter. A quality of heat exists in the qualified atmosphere of planetary bodies and all substance, the effect of similar action ; however, it is of too low a grade to be distinctly appreciable unless stimulated by artificial means ; as in case of heating air or substances by means of the combustion of certain other substances ; as wood, coal, &c.

This method of producing heat operates with extreme tardiness in case of low cometary matter ; and hence the ages that intervene while this matter is becoming heated ; while atmospheric heat, so termed, developed by a comparatively high quality of matter during all eras when it is distinctly developed, is eliminated with a great comparative degree of rapidity during all these eras.

In qualified atmospheres, cold qualifies the degrees of heat eliminated by all the various means, by atmospheric or surface matter; while, in unqualified atmospheres, this agent is not operative to this end to the same degree, or to any appreciable degree. Therefore it is, that matter of cometary bodies becomes so intensely heated during the period wherein atmosphere is a non-conductor of cold to the surface; and therefore it is, that subsequent to this period matter cools.

The condition of atmospheric matter at the close of the seventh era, was such that it could act as a medium for the transmission of cold to the surface. At this period, it was dense vapory substance heated to intensity. It passed its period of greatest intensity of heat just previous to the period when it became a medium for the transmission of cold — just previous to the close of the seventh era. Its whole mass was, during the vast period while the body was nearly approaching its upright position, continuing in, and just receding from that position, in intense atomic action. Nature's object, at this period, was to cool matter; to rarify the atmosphere sufficiently by atomic action, that the whole surface might be simultaneously operated upon by cold. Elemental action induced by the action of cold with heat upon matter, together with atomic, acts more powerfully to rarify a cometary atmosphere than atomic alone; yet, this agent could not be effectively employed and the whole surface be simultaneously operated upon by cold. At this period, condensation had induced the development of a sufficient degree of heat for the evolution of the basic elements, which heretofore had been in combination; this evolution of those elements, signifying only their elimination in form of grossest fused substance, all commingling in mass. Now the effort must be to cause a subsidence of heat, that these elements may perfect, and naturally act upon each other for the evolution of higher elements. The period necessary for the condensation of matter from the heated mercurial stage, or that

portion of that stage when the greatest heat prevailed, to the mercurial stage proper,—that condition when cooling processes commenced materially to aid in the condensation of matter, was equal in length to the ninth era.

The average ratio of diminution of length of the eras under consideration, is a ratio varying from one and a half to one, to one and two thirds to one. The length of the first era of a cycle, which is the same, approximately, as the last era of the preceding cycle, is once and less than a third the length of the second era of the cycle; while the fifth era is nearly twice the length of the sixth; thus making the average as above stated. This is the comparative length of the eras composing a single cycle, whatever its nature—be it a cycle of eternities, or the shortest eras of planetary development.

The first cometary era of Earth was once and a third the length of the second, while the fifth was nearly twice that of the sixth; thus with the eras of the second cycle of cometary eras.

The eighth era accomplished the condensation of Earth to that degree, that at its close, its cometary tail would have measured less than 10° ; while the position of its aphelion and perihelion were changed in an equal proportion.

The ninth era, or boiling sulphur stage, accomplished its condensation to that degree that its tail, at its close, would have measured less than 3° . Volatility of matter was so decreasing that the body was assuming proportions—was approximating to the spheroidal form. The latter cometary eras accomplished, apparently, less in regulating the proportions of the body than former eras; however, more was accomplished in these eras toward the condensation of matter, its preparation for the assumption of planetary form, than during all the former eras.

During the ninth era—the boiling sulphur stage; the tenth—the heated sulphur stage; the eleventh—the lava stage; more was accomplished of actual condensation of

matter, than during all the preceding eras. At the close of the tenth era—the heated sulphur stage, the body lost its true cometary form; assuming in the progress of the lava stage—the eleventh era, the oblate spheroidal form. At the period of the assumption of this form—the former part of the lava stage, the positions of the aphelion and perihelion were approximating their present positions. As all bodies of the system lost their cometary form, all revolved in, comparatively, regulated orbits; as nearly regulated as the forces of the system would permit; its forms being condensed spheroids. Reaching the spheroidal form, bodies continue of this form for long periods; during which, their orbits are irregular; becoming, for the time, fixed in the elliptical form.

The development of bodies from the oblately spheroidal form to the spherical, and that of their orbits from the elliptical to the circular, corresponds in ratio of progress to their development from the lowest cometary form to the spheroidal; that of their orbits from the eccentric to the elliptical. At first progress is slow; as in the case of rare cometary forms, when from one era to another scarcely any appreciable change of form is effected. A period arrives when progress is stimulated; when the spheroidal rapidly determines to the spherical; corresponding to the period when the cometary so rapidly determines to the spheroidal.

Atmospheric conditions, during these last mentioned eras, as rapidly progressed as did those of the condensed body. During the ninth era, the atmosphere lost its, so termed, dense vapory volatility, and assumed the semi-dense. Periodic change of climatic conditions wrought its regeneration to this stage prior to the period when the second great vibration should cause the greatest inclination of Earth's axis to the ecliptic possible from the existing quantity of disturbing forces in the system—about midway the period intervening between that when it was in its upright position and this. At the period when the atmosphere merged from the dense

into the semi-dense vapory stage, a lesser vibration had brought the equinoxial and ecliptic into near coincidence; therefore, action of it, at that period, was atomic; not elemental. Atomic action, rife throughout the whole atmosphere, determined the whole mass to be simultaneously developed to this condition; while the equalization of the temperature of the whole enveloping mass induced rapid condensation of surface matter of all sections of the condensed body.

Intensity of heat was still the condition of matter. New elements could not be evolved until condensation had proceeded to solidification; until the basic elements had developed into form, so to speak. These, while commingled in a state of fusion, could eliminate no new elements. Electric action upon them while in this condition only elicited atmospheric atoms of like substance, which escaped from the volatile mass of the condensed body as gaseous emanations.

The dawn of an era was the institution of a period of greater intensity of action than marked its close. Stagnation of nature's forces always marks the close of an era, of whatever nature or length be that era. As there are degrees of stimulation of force, there are degrees in stagnation of it.

The dawn of a cometary era was marked by the simultaneous evolution of masses of gaseous atmospheric matter from the volatile matter of the body. Matter being volatile, these masses were evolved without such apparent effort as marks the evolution of such masses at the dawn of a planetary era; however, the effect was the same in comparison to the degree of development of the matter, cometary and planetary. During the day of the era, intensity of action prevailed; emanations of this matter were continual or periodic, according to the volatility of matter. As the evening succeeded the day, intensity of action ceased; as the night approached, action subsided, apparently, and stagnation was the condition of

elements, both of the condensed body and the atmosphere. As the night waned, more utter stagnation was the condition of these elements; however, it was not utter stagnation, as action is perpetual; neither was it, at the period under consideration, stagnation such as marked the night of a cycle of Earth's early cometary eras; and yet it was stagnation. Action was insufficient to induce evolution of atmospheric elements from the volatile matter of the condensed body. The process of evolution of these elements from the body ceased in the former part of the evening; yet, action continued from the force of existing conditions.

Atmospheric elements wrought with one another, wrought upon surface elements, and these with each other and upon atmospheric. Thus action continued until the waning forces of the atmosphere and of surface matter were exhausted; then the night began. The exhaustion of atmospheric forces, and those of surface matter, was not utter exhaustion of these; it was apparent exhaustion,—exhaustion in degree.

The institution of the eleventh era was the institution of the highest condition of cometary matter. Atmospheric conditions were less favorable for the development of the surface matter of all sections of the body than they had been during the immediately preceding past eras. The great vibration was causing great obliquity of the ecliptic, extremely diverse climatic conditions of different sections of the atmosphere, which determined that elemental action should be most favorable for the qualification of the atmosphere during that era; and that elemental action of surface matter should cause a preparation of that matter for more rapid progress, in a future era.

The lava stage witnessed the basic elements in a state of fusion; still acting upon one another as elements for the evolution of atmospheric elements.

Elemental action is always stimulated by diversity of climatic conditions of different sections of a body. Atmos-

pheric conditions during the continuance of the lava stage were becoming more and more favorable to the production of active conditions at the surface; they were becoming more favorable to the production of more active conditions of atmospheric elements. Atmosphere was becoming a better conductor of forces, as it was becoming more volatile, more refined. Its volatility during the eleventh era corresponded to that of semi-dense vapor. It was of too low quality to transmit the prarental electric fluid in sufficient quantities to the surface of the condensed body to develop climatic conditions of that surface, properly termed; however, sufficient was transmitted to the surface to cause intensity of action of fused elements—intensity of action as compared with any former action.

Upper strata of the atmosphere, being most refined matter, was most susceptible to the influence of the electric fluid; most susceptible to the influence of position of the body—position of various sections of it relative to Sun. These developed the diverse climatic conditions dependent upon position of the various sections of the body relative to Sun, in a degree. Lower strata, though less qualified to appreciate position, developed these diverse climatic conditions in a smaller degree; in other words, became mediums for the transmission of these conditions to the surface.

Still all matter was fiery. Earth's condensed body was a shoreless ocean of boiling, seething, steaming lava; its atmosphere, black, sulphurous vapor. Light may be said to have been the condition at the surface at this period; as from the liquid boiling mass were constantly being emitted streams of flame-like gaseous substance, which emitted light sufficient to cause lower strata of atmosphere to resemble flame, in sections; while other sections where these emissions were less continuous—were only periodic, were black; a darkness overspread these sections of the surface that was, emphatically, "thick darkness." So great was the heat at the sur-

face, and in lower strata of atmosphere, during this era, that all metals known now upon earth would have been fused by it. It is hardly possible for the human mind to conceive how cold, in sufficient quantities to cool that surface, could have been transmitted through such an atmosphere to it; but when it is understood that the era under consideration was hundreds of millions of years in length, it will be understood that much could be accomplished during the era, although the cooling process, from the condition of the atmosphere, was so extremely slow. No perceptible diminution of heat upon any part of that surface, at any time, could have been perceived by human comprehension, for these ages. Apparently, it was one condition through all the former part of the era—that of intense heat of atmosphere and of surface. And yet, cold acted upon that atmosphere, and, by its agency, upon that surface. By the influence of contiguous cooler strata an intensely heated stratum became a less heated one; this acted upon the next intensely heated stratum, and this upon the next; thus to the lowest stratum; which, in like manner, acted to cool the intensity of surface heat. Thus, though imperceptibly for the ages, the cooling process was surely progressing. The human mind in its present state, has no power to appreciate intensity of heat; as of matter of a sun in its mercurial, sulphur, and lava stages.

At the close of the tenth era, the true cometary form of the body was lost; no tail, properly termed, was developed by motion of the body, the matter of which was still volatile—cometary. It was assuming the oblate spheroidal form at the institution of the eleventh era. At the close of the tenth era, the great vibration was causing the greatest inclination of the axis to the ecliptic possible from the existing quantity of disturbing forces in the system, subject to the lesser vibration, which, at this period, was acting in opposition to it. At this period, the tropics were located north and south of their present position; causing great diversity

of climatic conditions of the different sections of Earth's atmosphere. The effort was, to so qualify matter during the progress of the eleventh era—so cool it, that the elimination of the basic elements in individualized form, so to speak, from surface matter of the body, could result. The institution of this condition was the institution of the twelfth cometary era, or planetary stage.

During the twelfth era, solidification of matter commenced. Continued action for the unnumbered ages since Earth was evolved from the womb of the mother sun, had accomplished only the elimination of the basic elements.

When solidification had resulted from the cooling process, the solidified matter resembled gross lava; these elements were that matter. Behold nature's work! All matter in the lava state! To the uninstructed mind, it would seem that little had been accomplished during all the past, toward perfecting matter by the processes instituted at the various eras since matter was evolved from its lowest primeval condition. Such a mind would have exclaimed, upon viewing the result of all this action: "It is a failure!" "Nothing has been accomplished, save the development of ashes!" Yet, when Earth had reached this condition—when its volatile matter had commenced solidifying, all the hosts of the Most High shouted for joy; crying: "It is accomplished! A child of hope is born! A planet is issuing from the womb of nature!" Well might all intelligences rejoice in view of what had been accomplished; well might they glorify the Father as they observed—studied the processes by which a planet had been developed—the processes which, though in their accomplishment untold ages had been consumed, yet had accomplished that whereunto they were instituted. Well might these rejoice; knowing from what they had already observed, that what God had promised He was able to perform—would perform, as surely as he had performed thus far.

The ages of the eleventh era had sufficed to cool surface

matter sufficiently that it could consolidate by the further action of cold upon it. The atmosphere was becoming a better conductor of cold to the surface, as its several strata became qualified to appreciate position, as climatic conditions of its several strata were developed. Elemental action, during the long period since Earth had been in its most inclined position, accomplished much toward the refinement of atmospheric elements. At the institution of the twelfth era, the volatility of the atmosphere was becoming of the rare vapory.

At the period of the close of this era, Earth had assumed the regulated spheroidal form; rotary motion had regulated the form of the body so that its protuberant section was the equatorial section. In aid of rotary motion, the lesser vibration, had, during the progress of the era, brought the ecliptic and equinoxial into near coincidence. This occurred about midway the era, when matter was in that condition that it was susceptible to the influence of orbital motion sufficiently to constitute that motion an aid to rotary in regulating the form. As this lesser vibration again acted to cause greater obliquity of the ecliptic, matter was becoming less susceptible to the influence of orbital motion; consequently, this motion had no longer the effect to vary the form of the body. The oblate spheroidal form became the fixed form of the body, until planetary developing forces should change it to the spherical.

Heat was still the condition of the surface and atmosphere at the close of the twelfth era; yet, intensity of heat had subsided to that degree that atmospheric cold could operate upon surface matter to aid in its condensation; its solidification. Intensity of heat was still the condition of central matter of the body. This implies that all matter of the body, save one stratum of surface matter, was in an intensely heated condition. Therefore, long periods must elapse before much could be accomplished towards solidifying surface matter to that degree that a permanent crust could be formed to

the fused mass. During the twelfth era — the planetary stage, no permanent crust was formed to the volatile mass constituting Earth's condensed body. Action operative during that era, was action of the basic elements upon one another through the agency of the electric fluid generated by each. It was action of the parental and atmospheric electric fluid and gross atmospheric elements with the earthy electric fluid and the gross earthy elements; this latter action being a powerful agent for advancement of surface matter. A section of surface being solidified by cold, immediately the parental electric fluid combined with the atmospheric, operated to evolve a similar fluid from the elements composing this solidified matter, which elements were of the nature of the gross elements from which they were evolved. These acted chemically upon the corresponding gross elements, and upon each other, and co-operated with atmospheric elements for the evolution of new — higher, earthy elements. This action throughout the whole era, accomplished the regeneration of surface and atmospheric matter, so to speak; — accomplished this regeneration by determining the evolution of new elements to act with the already existing ones, for the purification of the atmosphere, and the development of the surface. Partial crystallization commenced during the latter portion of the era; no permanent crystallization could result during the era, as elements were yet too gross to crystalize in just proportions to form permanent organizations. Decomposition of the low crystalline formations furnished the highest elements for the organization of new forms, for the supply of atmospheric elements suited to aid in the evolution of higher forms. Many attempts at permanent crystallization were made, so to speak, during the era; each effort producing a higher form than the preceding. And yet, matter was ashes! Each form determined back, apparently, to its original condition of gross lava in fusion.

Heat was the assistant agent of cold for the evolution of

higher elements from this low form of earthy matter. No sooner had a section of surface matter cooled, than, certain changes occurring in atmospheric strata inducing a less degree of cold in that particular section, and thereby internal heat gaining the ascendancy, that section of solidified matter would merge into the heated mass below; and again that section of surface would be boiling, surging lava. Apparently, what had been gained by solidification, by this action of internal heat, was lost; yet this apparent loss was gain. The re-fusion of the gross solidified substance constituting the newly eliminated basic elements, was nature's process for the evolution from them of the highest elements possible to be evolved from them in the existing state of matter. These elements commingling with the atmosphere, or determining to some section of solidified surface, entered into combination to form the imperfect crystalline rocks above referred to. The re-fusion of these still higher forms of surface matter, as before, was productive of still higher elements; and thus the process was continuous through the whole era.

Of rare vapory consistency, the atmosphere was yet black; thick darkness was the condition at the surface, save only, as sections of the lower strata of atmosphere were lurid flame, or seemingly such, from the quantities of flame-like gaseous substance emitted into them from the agitated matter of the body.

A sun is a machine for the manufacture of the electric fluid for the support of its individual body, and that of its entire system; it is an organization whose several organs act as generators of the various kinds of this fluid necessary to the support of the body and the system. The heart of this organization is the most highly qualified matter of it. At the period of the institution of the formation, and until natural forces have developed surface matter higher than this, central matter constitutes this organ. The several organs of this organization are the mineral substances composing the

body ; which, at all periods during its existence, in their highest forms, accumulate in distinct localities within it, subject to surface conditions induced by elemental action. From the period of the institution of a body, currents of the electric fluid originated by these organs by the co-operation of the parental electric fluid, are coursing through it for the stimulation of its progress, and as the originator of all action of its matter. Circumstances of position of a body in its orbit, climatic conditions, elemental and atomic action, determine certain sections of a sun to be positive to other sections, for periods ; and finally fix the positive and negative relation of hemispheres and poles to each other.

Earth's north pole is positive to its south ; its northern hemisphere is positive to its southern. This condition was determined by position when Earth was in its third cometary era—a rare volatile state.

It is here remarked, that the poles of all suns are fixed as positive and negative during the rare volatile condition of their matter ; and by the same method as Earth's were fixed as such.

During this era, as already stated, the great vibration induced the greatest inclination of the axis to the ecliptic. The greatest diversity of climatic conditions of the different hemispheres possible from the condition of matter at that early era, were induced by this position. The era was long wherein this diversity of climatic conditions existed—the era of the greatest inclination of the axis ; and during this long period, elemental action established currents of positive matter in the northern hemisphere, and currents of negative matter in the southern hemisphere. This was determined by the comparatively trivial circumstance of the direction of the inclination ; the northern hemisphere being the one inclined toward the disturbing force. This force was sufficient to act upon the most highly qualified matter of the body to gradu-

ally draw it to that hemisphere, fix it in that hemisphere, subject to the influence of elemental action.

This result was accomplished by the action of the disturbing force—the great quantity of it which produced the great vibration, the obliquity of the ecliptic. Condensation had so far proceeded before the inclination of the southern hemisphere in the direction of the disturbing force, that this force had no power to displace the matter of the body, as formerly.

The true poles of the earth, according to the exposition already given of rotary motion of a body, signify the points at the extremities of the body fixed by solidification of surface matter as single revolving points—atoms which have no power to rotate around the central atom, being fixed by the solidification of surrounding matter; but which rotate in obedience to the central atom like the extremities of an axis. These poles are not the electric poles of the body. The electric poles are fixed in the vicinity of the true poles, in localities where the located matter is the best conductor of the electric fluid. The location of these poles is fixed near that of the true poles in consequence of the nature of the conducted fluid; it being of the lowest kind generated by the surface matter of the body, and affinitized to the lowest kind attracted to the body from Sun. There is constant reciprocity of action between Earth's poles and Sun's; the electric fluid flowing in massive currents from the one to the other, these being points particularly attractive to these grades of the fluid; they being, as remarked, conductors to these qualities of the fluid. These are the true electric poles, simply because they are the best conductors to this low grade of the fluid. Any other localities corresponding on each hemisphere, might be the poles, were the mineral substances congregated in those localities of the right nature to constitute them the best conductors of the great mass of the electric fluid conducted by these poles. Every locality constituting

a mineral bed, may be termed a pole, and a positive or negative pole according to its situation in either hemisphere.

Corresponding to every positive element is a negative one; corresponding to every positive body is a negative one; corresponding to the positive hemisphere of that body is the negative one; and corresponding to the positive elements of that positive hemisphere are the negative elements of the negative hemisphere; according to the exposition of this subject given in a preceding chapter. Reciprocal action of the members of the dual force—the positive and negative, determine this. Every current established as a positive current in the northern hemisphere, has its corresponding negative one in the southern; because thus act the two forces when the one is constituted a positive force at the period named. From the first institution of the form of the body, these forces had reciprocally acted; yet, not until regulated by circumstances as above described, did they act regularly for the development of the body.

This arrangement of the positive and negative forces of a sun, is, in every sense, a necessary arrangement—is nature's own arrangement. In every sense is this arrangement of these forces that of every form, from a universe to an atom.

The period that fixed the positive and negative hemispheres, fixed the positions of the electric poles. Rotary motion determines that the position of the highest quality of matter of a body shall be in equatorial regions; the atomic force of this matter overbalancing that of lower quality, thus determining that currents of this matter shall revolve in equatorial regions; or in a direct easterly direction. Thus, when matter was in its volatile state, all currents were fixed in this relative position; this principle determining that the currents of lowest quality of matter should be those rotating around the true poles.

The currents of matter of a rotating body are similar, in the arrangement of different qualities of matter, to the strata

of a sphere. These currents are not currents of diverse matter; as of substances of different natures, but are currents of different grades of substance of the same nature.

The great law of matter determining that the most condensed matter of a body determines to the center, is the law that fixes the location of the poles. Along and near the axis of rotation, through the entire crust at both extremities of Earth, is located a vein of mineral substance of a quality to act as a magnet to the circulating electric fluid—that quality of this fluid evolved by the gross minerals. This vein is thus located from the circumstance that the matter composing it was the highest quality of matter of the currents there located—the most condensed;—matter which determined to the center, or, as near it as possible from the position of the currents. Solidifying surface matter became more highly qualified matter than this; yet of such a nature was this matter, that while whole sections of intervening substance between this and surface matter, comprising in some localities miles in depth, is, comparatively undeveloped substance, this is developed to the high form of mineral substance. Being of such a nature as to be peculiarly susceptible to developing forces, through the agency of pressure and subterranean heat, it has attained to this form. The surface extremities of these veins are broad areas—miles of surface; not necessarily metallic in all sections, but necessarily charged in all sections with electric fluid of the nature described. The localities of the electric poles are determined by surface structure of the extremities of these veins; which structure resulted as an effect of convulsive action during a remote era of the past. A section is properly an electric pole—a section of the great mineral bed, whose surface has been least disintegrated by elemental action, and which is, therefore, best calculated to conduct the fluid to, or from, interior sections of the crust. Could polar regions be scanned, thoroughly, many localities would be discovered which might be termed

poles, in the same sense that the discovered ones are thus termed ; there being many sections of this surface good conductors of the fluid.

Nowhere else in Earth's whole crust do such veins exist ; nowhere else can they exist, from the constant tendency of surface matter to progress into higher forms. These veins being continuous through the entire crust at each extremity, they are perfect conductors of the fluid to the whole crust. They are, in a sense, the heart of the body, from which, and to which, determine all the veins and arteries of the body through which this character of fluid is transmitted.

While these are the vehicles of transmission for the great mass of gross electric fluid—that quality evolved in greatest quantity by matter of Earth's crust, and received in greatest quantity by Earth from the parent sun, there are numberless other vehicles for the transmission of higher qualities of the electric fluid ; there are many electric poles to Earth—localities which are conductors for the different qualities of the electric fluid. Each pole transmits its own peculiar quality of the fluid ; each mineral bed is the recipient of a peculiar quality of the fluid, which quality is manufactured by it by the aid of the parental fluid which it receives.

As matter acts in the planetary state, so it acts, in degree, in the cometary. As veins, mineral beds, and poles, are located in Earth's crust, being in a planetary state, they were located in its surface substance when in the cometary state ; subject to the cometary condition of matter, as already explained. There is a perfect correspondence between nature's action in the corresponding eras of the planetary and cometary state. Each era of the planetary state had its corresponding era in the cometary, wherein action was similar action in degree.

The twelfth era accomplished the preparation of matter for the assumption of the first planetary stage. Although it had failed to perfect a single organization, it had not failed

in a single purpose for which it was instituted. While qualifying the form of the body, it was developing surface matter to the stage, that when motion should be again stimulated, permanent organization might result from nature's action.

The era waned ; its evening advanced ; elemental action subsided. Then was darkness universal. The mighty deep ceased its surging ; calm, quiet, settled upon the face of nature ; it was as though life was not ; as though death universal reigned. The evening was succeeded by the night ; the darkness was not deeper, yet the quiet was greater, the repose more profound.

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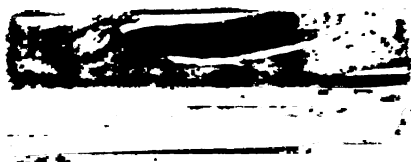
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